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FEBRUARY, 1946

No. 1

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# SOCIOMETRY

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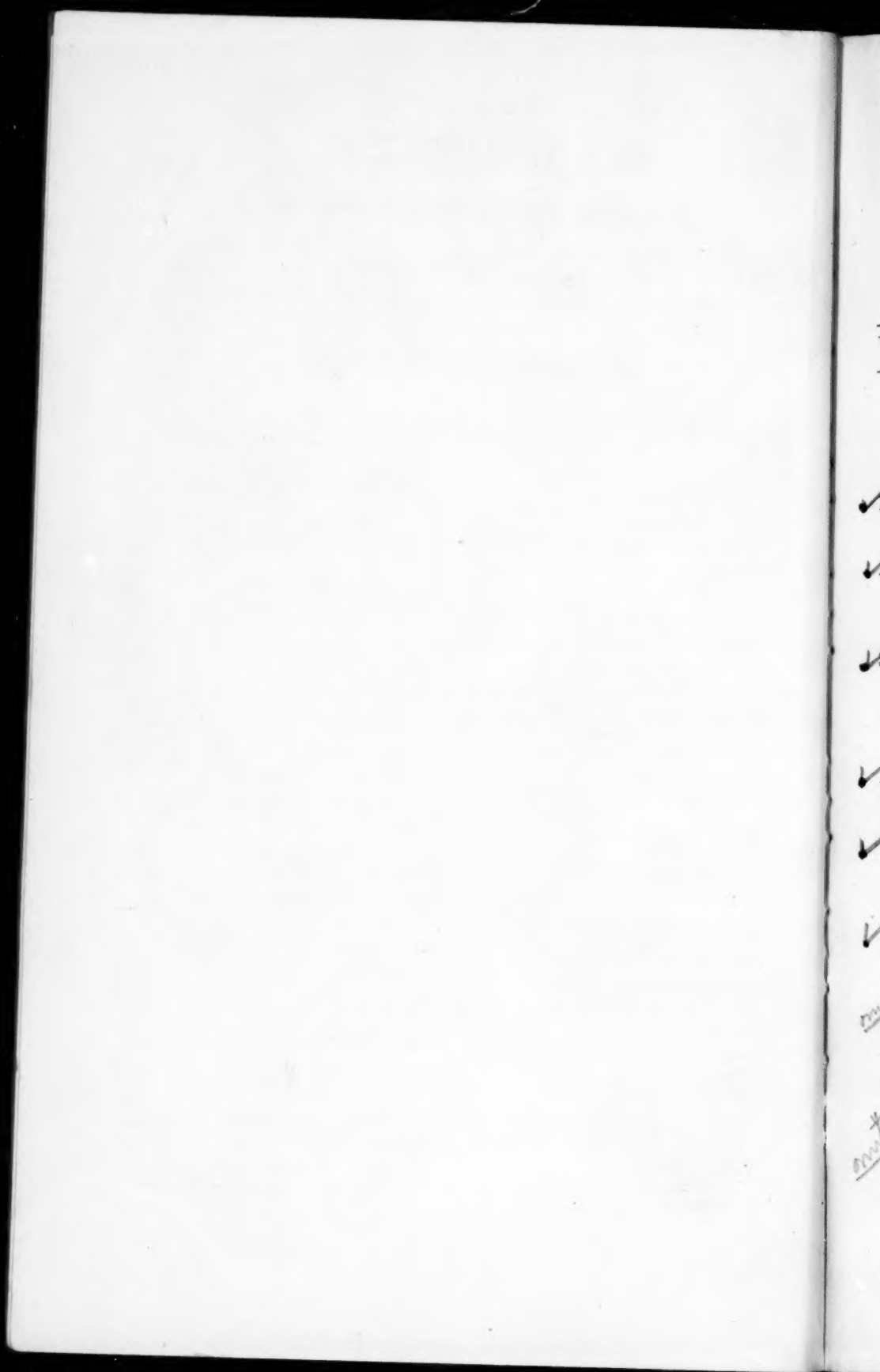
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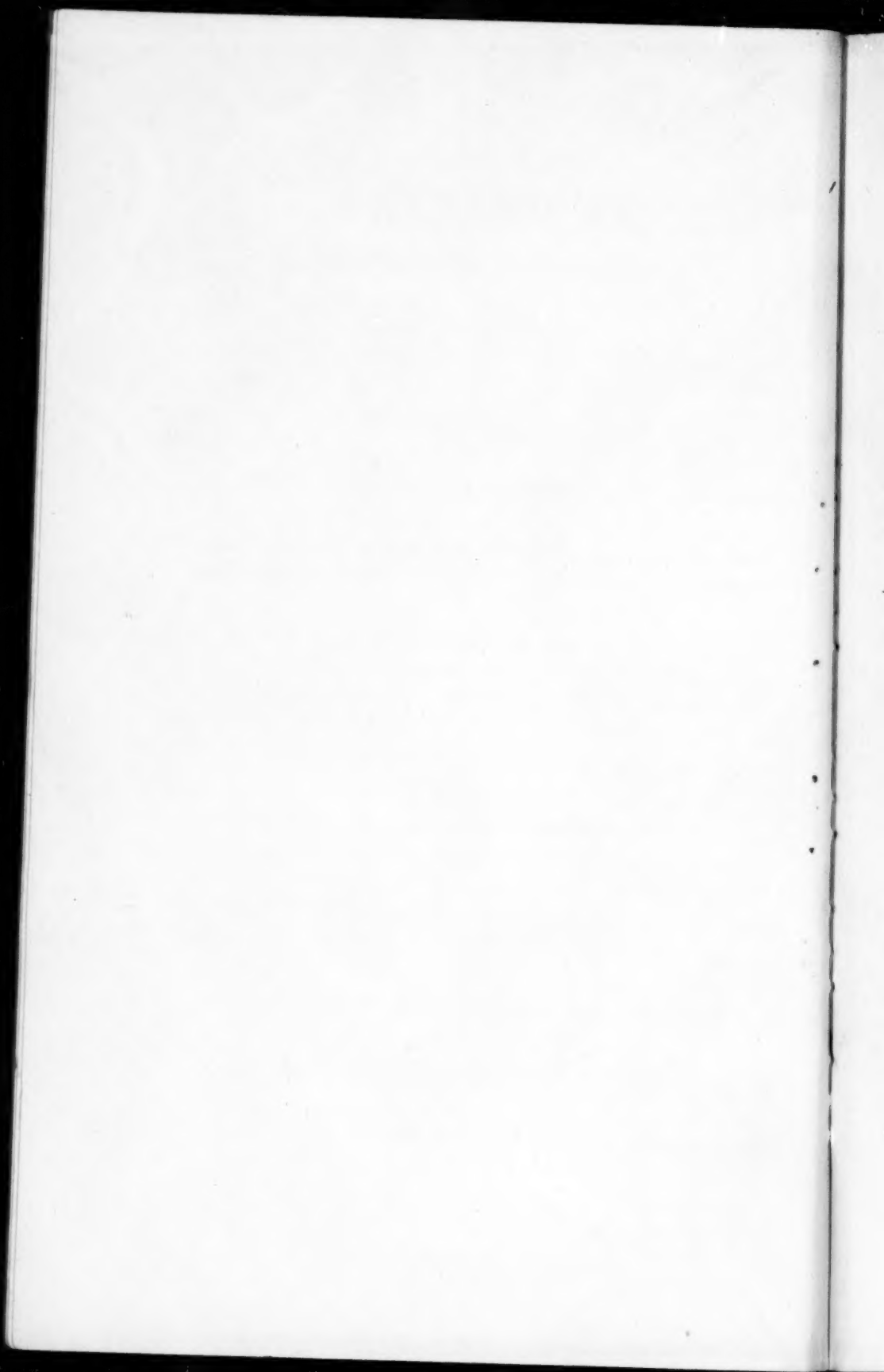
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## FOUNDATIONS OF SOCIOMETRIC MEASUREMENT

JOAN H. CRISWELL

*Social Security Board, Washington, D. C.*

"Sociometric Measurement of Social Configurations," by J. L. Moreno and Helen H. Jennings, Sociometric Monographs, No. 3, Beacon House, New York, 1945. Pp. 35. \$1.50.

"The Measurement of Sociometric Status, Structure, and Development," by Urie Bronfenbrenner, Sociometric Monographs, No. 6, Beacon House, 1945. Pp. 80. \$2.25.

The tracing of the internal structure of social groups and of the delicate behavioral balances existing between populations demands a mathematical implementation peculiarly its own. Although the temptation may be great, methods of analysis cannot be taken over bodily from such related and more highly developed fields as for example, psychometrics.

One factor making for considerable difference between measurement of group structure and measurement of individual traits is the fact that the former type of investigation involves a variety of asymmetrical frequency distributions widely deviating from the normal. In an investigation, therefore, it cannot be taken for granted that the data are distributed normally, and a problem of first importance is to determine the types of curve involved and the adaptations of method required by such distributions.

Another difference lies in the greater interest of social measurement in the patterns arising from interpersonal relationships. This requires the invention of charts suitable for the visual presentation of such configurations. At present functioning as a means of clarifying the presentation of pattern, these charts might eventually lead to a more extensive development of geometric method than in individual psychology.

A third problem of particular prominence in group measurement arises from the typical use of field investigations in which populations unavoidably vary in such attributes as size and racial or sexual make-up. It is necessary to devise measures which are unaffected by such variations. Several types of measure might conceivably be tested out in the same experimental situation. Already two such indices, to be mentioned in this review, are available.

All the problems mentioned are touched on with different emphases in the two monographs under consideration. The first question with which the Moreno and Jennings monograph is concerned is the fact that patterns of social interaction might be the product of chance factors rather than of the social preferences of the members of a group. It is thus necessary to know how much the configurations experimentally elicited differ from those which

would be produced if subjects behaved entirely at random under the criterion used.

The social structures under study were obtained by using the sociometric test, the experimenter asking each one of a group of girls living together in a dormitory to choose three fellow members with whom she would like to sit at meals. There were 26 girls in each of seven separate dormitory groups and all made the required three choices. The resulting data showed a heavily skewed distribution of choice, with some persons receiving no choices at all and a quarter of the population attracting to themselves over half of the selections.

To determine what sort of choice configuration would occur in such groups by chance, the authors carried out seven chance drawings. In each drawing the individuals were represented by 26 ballots, three of which were drawn at random for each fictitious chooser. On tabulation, the chance pattern of choice differed markedly from the experimental results, producing a more equitable distribution with fewer unchosen and also fewer heavily chosen individuals. It was found that this chance distribution could be plotted by means of the expansion of a binomial the formula for which was worked out by Paul Lazarsfeld. Chance formulas were also developed for predicting both the number of "mutual pairs" of choices reciprocating each other (A choosing B and B choosing A) and the number of choices which would be unreciprocated. All these formulas have proved important in the evaluation of social structures experimentally determined.

Using the ballot values as points of reference the authors demonstrated large discrepancies between the experimental and chance results. The differences obtained are so great as to appear hardly the result of chance. Nevertheless it would have been interesting to see a more systematic application of some technique for bringing out the statistical significance of these deviations. The chi-square test was applied in only one case, to show that the difference between the number of non-reciprocal relationships predicted by formula was not significantly different from that in the chance distribution of ballots. The test was not applied to any of the differences between actual experimental and chance results, although such an application to all these differences would have considerably strengthened the conclusions reached.

The authors further employed chance values as a base for expressing the extent to which a given structure was present in the organization of the group. Their expression takes the form of a ratio between the number of structures experimentally observed and the number which would occur by

chance. For example, the number of isolates (unchosen persons) is expressed as 250 percent greater than the number predicted on a chance basis.

The ratios as stated may be considered incomplete in that they do not include the entire distribution of each structure measured. In expressing the incidence of social isolation, for example, we are interested essentially, not in the number of unchosen persons alone, but in the number of isolates in proportion to the number of non-isolates. This is the complete value experimentally obtained and the corresponding chance ratio of isolates to non-isolates is the value by which the experimental ratio must be divided. Thus the Moreno and Jennings measure which would relate only the experimentally obtained number of isolates to the chance number, can be completed by including the number of non-isolates experimentally obtained and the number expected on a chance basis. This ratio method is useful in sociometric measurement in that it offers a means of expressing the incidence of various structures regardless of the size of the group involved.

Another topic of importance discussed in the monograph is the problem of pattern evidenced in the fact that different groups characterized by the same number of unchosen individuals, mutual pairs, etc., may yet be quite different in social organization. In one population, for example, the pairs may all be unconnected with each other except by unreciprocated choices, while in another they may be connected in chains of varying lengths. The authors point out that in analyzing such differences of pattern the sociogram charting the interrelationship of individuals is of exploratory use, since it aids in preventing the experimenter from overlooking the complexities of configuration involved.

Another approach touched on is (the measurement of inter-group attractions and repulsions by means of a ratio method. For example, a group's interest in another group is expressed as that percent of its total choices which it directs toward the other population. Here the authors might well have employed again the chance principles so well discussed earlier in their paper. Since a group's direction of choice toward itself or another group can only be evaluated in terms of the corresponding chance distribution of such selections, the complete ratio of its interest in another social unit in relation to itself would involve the ratio between the choices it actually directed toward the other group and the choices it actually directed toward itself, and the ratio between the corresponding chance values. Dividing the experimentally obtained proportion by the chance ratio would produce a measure of group preference comparable with the previously discussed ratio for expressing the incidence of isolation.



In closing, Moreno and Jennings touch briefly on the elaborate conception of a sociometric scale on which could be arranged the different types of pattern which a group might assume, with complete lack of integration (all choices unreciprocated) at one limit and complete integration (all choices reciprocated) at the other. Some of the statistical complications inherent in such a scale are indicated by the fact, pointed out by the authors, that on each level there are numerous "sociotropic" formations which have the same number of mutual pairs but differ in the positions which the constituent individuals occupy in relation to each other.

The scale is at present chiefly of interest for its suggestion of the types of variation possible in such a framework. The concept of sociotropes is an intriguing one but involves even greater complexity than the authors indicate. Their estimate is that for a group of  $N$  individuals the scale would exhibit at each level a number of sociotropes equal to factorial  $N$ , the number of permutations of such a group. But they omit to state that except in rare instances there are at each level a variety of configurations in which all individuals occupy the same positions in relation to each other but within this framework show different patterns of choice. Each such configuration is then characterized by its own collection of sociotropic rearrangements. The scale thus acquires three dimensions based on mutuality, choice, and individual position.

For measurement purposes, the number of different permutations of a given configuration is actually less than factorial  $N$ , since some permutations of  $N$  individuals are sociometrically equivalent in that the subjects may be considered to occupy different positions in relation to each other but the mutual pairs are between the same individuals in both arrangements. That is, a reciprocal pair expressed as  $A+B$  is the same as one expressed as  $B+A$ .

It cannot be said that the same number of sociotropes would occur at each level of integration, both because there are different numbers of choice configurations at each level and because the number of sociotropes per configuration is not constant. This arises from the fact that the number of possible configurations and sociotropes increases with the number of unreciprocated choices. For this reason the number of different varieties of groups at each level would increase as the scale passed from the highest to the lowest level of integration.

It is suggested in the monograph that the level of maximum integration in the scale may very well not be the best therapeutic level for a group. In fact, excessive mutuality might be suspected to imply a pathological degree

of group "introversion". To develop such a scale to an appropriate degree and relate it to measures of group morale would therefore be a valuable research study toward which this paper points the way.

The chance methods presented by Moreno and Jennings are further developed by Bronfenbrenner who takes up the search for a serviceable means of testing for statistical significance the deviations of experimental results from chance values. After various methods were tried out, his final procedure, taken from Carver, was to express any given deviation in terms of the standard deviation of the binomial distribution used in predicting the chance results. The probability of occurrence of such a discrepancy by chance is then obtained by reading from Salvosa's tables the corresponding area under a Pearson Type III curve of skewness comparable with that of the binomial distribution employed.

This method can in many cases be used interchangeably with the chi-square technique, but it may prove of greater value in that it allows for the particular form of the chance distribution used and, further, in that it provides not only a test of significance but also a quantification of the discrepancy in terms of standard units.

The Carver method is of course inapplicable to distributions which do not follow a binomial expansion. This is true, for example, of the chance distribution of mutual pairs for which Bronfenbrenner gives an incorrect binomial formula. In the case of mutual pairs we do not have within the same group a single event repeated  $n$  times with two possible outcomes, as the binomial theorem requires. Instead we have a collection of interdependent events. When A and B choose each other they inevitably fail to choose numerous other individuals who may or may not choose them, so that their mutual pair enters into the formation of other relationships, either non-reciprocal pairs or pair relationships in which neither of two individuals chooses the other. All three types of pairs must be considered and all are interdependent. Plotting all the theoretically possible arrangements of pairs for any population will show definitely that the chance frequencies do not conform to a binomial expansion. In the case of mutual pairs, therefore, the deviation from chance must be tested by some other method such as chi square. The most probable chance frequency of mutual pairs used in a test of that sort would of course be the mean of the above-mentioned theoretical distribution of pairs and can be arrived at by means of the formula for predicting reciprocal relationships presented in the Moreno and Jennings monograph.

In discussing formulas for predicting the chance frequencies of various

types of events Bronfenbrenner includes the mathematical expressions already stated in the Moreno and Jennings article and in Criswell's work on race cleavage. One new formula is reported for determining the probability that a given number of isolates or fewer will occur by chance. This expression is difficult to evaluate, but a question may be raised as to its comparability with other tests of statistical significance. If the chance number of isolates is predicted for a group by means of the binomial expansion, as is done in the Moreno and Jennings study, and the discrepancy of obtained results from chance is tested by chi square, discrepancies judged significant under the latter test frequently appear insignificant under the Bronfenbrenner formula.

A very valuable aspect of Bronfenbrenner's work is perhaps insufficiently emphasized in his presentation, since it is not clearly differentiated from the method of testing for statistical significance. The quantification of discrepancies from chance in terms of standard scores is not only a step in testing for statistical significance but is also an accurate measure of individual social status in the group or of the incidence of some social pattern such as inter-group cleavage. It is independent of group size. Since it takes account of the form of the binomial distribution employed, it may prove superior in certain situations to the ratio method mentioned by Moreno and Jennings and developed by Criswell in the measurement of race cleavage. Unlike the ratio procedure, however, the standard score measure cannot in its present stage of development be applied to the quantification of reciprocation of choice.

The Carver technique has proved uniquely useful as a means of setting objectively the point in the choice distribution above which a group member may be considered to be overchosen and the point below which an individual is underchosen or socially neglected. Previous devices had been to set these points arbitrarily at the first and third quartiles or at one S. D. below and one S. D. above the mean, or to mark off unchosen persons as "isolates" and unusually popular individuals as "stars". Bronfenbrenner supplies a more objective statistical basis for such demarcations of areas, since "neglectees" become those chosen significantly less often than chance would allow and "stars" are those chosen significantly more often.

Carrying his definition of "stars" and "neglectees" into the field of the sociogram, the author refines on Northway's "target diagram", a sociogram which indicates social status by charting the most popular individuals (falling in the highest quarter of the distribution) in the center circle of a series of concentric circles, the least popular individuals (in the lowest quarter) falling in the outermost circle. For  $Q_1$  and  $Q_3$  Bronfenbrenner substitutes the points

of statistical significance determined by the Carver method, while the median is transformed to the binomial mean value.

The last chapter of the monograph is devoted to the report of a careful experimental study in which the methods of analysis developed were applied to classes, nursery level through sixth grade, in a small school. The sociometric test was given, every subject making not more than three choices under each of three criteria. There is some suggestion that not all children made the maximum number of choices, thus complicating the problem of prediction and measurement. But whether an adjustment for this situation was devised is not indicated.

The author describes his results as only "suggestive", but this seems overly modest. It is true that for definite conclusions a more extensive geographic sampling would be necessary. However, Bronfenbrenner's data are in line with a considerable body of work already completed. Although a more refined analysis was made than in earlier studies, the results on the whole confirm Moreno's original findings reported in *Who Shall Survive* and Criswell's later study reported in the *Sociometric Review* and *Archives of Psychology*. This confirmation is of considerable interest indicating, as it does, the fundamental importance and remarkable consistency of the tendencies studied. The more recent work is of particular interest in that it involves a quite different geographic area and a higher socio-economic status than did the earlier investigations.

Throughout the studies the same growth of social structure is disclosed, the group becoming more strongly knit and more highly differentiated with increase in the age of its members. At higher grade levels there are fewer socially neglected persons, a larger minority commanding more than their share of choices, more mutual pairs, a higher degree of sex cleavage. Thus there is a continuity between earlier and later work in terms of results obtained as well as in terms of statistical method.

The monographs here discussed, both vital elements in the expansion of sociometric method, should be carefully read by experimenters interested in the development of the mathematical techniques so urgently needed to transform social study from a field of speculation into a scientific discipline. The Moreno and Jennings study supplies fundamental formulas for making predictions on a chance basis, while Bronfenbrenner's basic contribution is the standard unit method of expressing social status and structure. These studies and others quoted in their bibliographies constitute a useful starting point for any attack on the considerable problems of social measurement which lie ahead.

## A TECHNIQUE FOR THE STUDY OF THE DYNAMICS OF THE RACIAL SATURATION POINT

EUGENE L. HARTLEY AND ALEXANDER MINTZ

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The concept of social distance introduced by Bogardus suggests a view of racial attitudes as relatively fixed, static adjustments; not in the sense of unchangeable, for Bogardus has stressed the possibility of changing social distances; but in the sense of tending to produce behavior characterized by a relatively simple type of consistency. This view seems to assume that an individual treats a whole out-group with a defined degree of "sympathetic understanding." This seems to be somewhat of an oversimplification. An individual's "sympathetic understanding" towards a group may vary according to the attitudes of other people present, according to the type of responses (e.g. verbal or otherwise) demanded by the situation and may differ to a greater or lesser extent from his attitude towards particular individuals belonging to the group. This complexity of racial attitudes has generally not been stressed in research reports.

The familiar "social distance test" of Bogardus has been extensively used as a research instrument in the study of racial attitudes (1, 2). It attempts to measure attitudes in terms of a graded series of situations, the subject being asked to indicate in which of these situations he would accept members of various nationalities. In its original form the test, in conformity with the view from which it originated, forces the subjects towards simplification of their attitudes by making them indicate in case of each situation unconditional acceptance or rejection. Subjects are directed to refer in their responses to estimated average individuals under average circumstances. It is possible to modify the Bogardus test so as to study certain aspects of the complexity as of attitudes, by adding details to the description of members of national groups (e.g. 7). Still it is ill adapted for the study of other aspects of attitudes; the test would become much too unwieldy, for example, if the social situations mentioned in the test were to be described in greater detail to enable more thorough exploration of their influence on "sympathetic understanding."

The concept of the "racial saturation point" suggested to us a somewhat different research technique which seemed to offer certain advantages. The sociometric approach, in the course of which the saturation point concept originated, emphasizes the complexity of interpersonal relations, and the saturation point concept offers opportunities for investigation of the com-



plexity of attitudes of the individual towards an out-group. In introducing the saturation point concept, Moreno states "A given population may be saturated with a certain minority group at a given time. If an excess of members of the minority group move into the community from the outside in numbers exceeding this point—the racial saturation-point—frictions and various disturbances break out." (8) Again, he writes, "In chemistry we call a solution saturated which can remain under given conditions in the presence of an excess of the dissolved substance. Similarly, there is a sociometric point of saturation of a specific homogeneous group for a specific other contrasting element under given conditions. In the case of a chemical solution its point of saturation for a certain substance may change, for instance, with the rise or fall of temperature. In the case of social groups, the point of saturation may change with the organization of the interrelated groups." (9, p. 225). These statements indicate the importance of the role of the particular situation and group organization.

As a result of the above considerations, a study was undertaken with a specially devised questionnaire. The technique consisted of a racial attitude test, in which subjects are asked to estimate their "racial saturation points" for a number of national groups in a given situation, that is, to indicate in numbers, how many members of various groups would be acceptable to them in a given situation without being experienced as too many. Such a test could be expected to have a number of advantages. The groups would be rated in terms of numbers rather than in terms of situations which may represent different degrees of intimacy to different subjects. The subject would not be forced to respond to national groups on an all-or-none basis in given situations. This approach introduces the threshold concept into the attitude study. Since each form of the test includes only one situation, it would be possible to describe this situation as precisely as desired and to vary the description for different groups of subjects, thus making possible a detailed study of the influence of the situation on the rated attitude. ✓

The main purpose of this paper is to describe such a test, to present evidence pertaining to its practicability and to indicate some preliminary findings obtained through its use.

**THE TEST.** A mimeographed form was prepared. At the top subjects were asked to supply their names and other identifying data. The directions then followed:

Consider yourself in the following situations:

In a course in mathematics which is required of all freshmen, there

are about 100 students all meeting together. They seem to be similar in most respects, and all have been able to satisfy the entrance requirements of the school.

Now, how many of these 100 students could be people born in this country of parents generally designated in the listing below? How many of such people might there be in the group before you personally felt there were "too many of them for comfort"?

Consider each of the groups listed separately, assuming that the rest of the class would be homogeneous, your kind of person. Your estimate for each group is to be considered independent of your estimates for every other group. Each estimate may vary from 0-100. Make your personal estimates for each of the groups in turn, entering on the line provided your feelings about the upper limit of the number of such people that could be in this group of 100 before you felt there were too many.

Thirty ethnic groups, including three fictitious designations were listed below in alphabetical order together with space for the respondents to enter their estimates.

Different criterion situations could be defined, but for the preliminary study only this, a relatively close and realistic one for college students was employed. The variable studied, in addition to the difference in ethnic group, was the special qualifications of the individuals supposedly involved. The blank listed the thirty ethnic groups, but also provided three columns designated "serious students," "outstanding athletes," and "all-around average as found at school." Students entered estimates in each column for each ethnic group. Comparisons could then be made of the estimated saturation points in the college class for serious students, athletes, and run-of-the-mill students.

*The Sample.* The test was administered in October 1939 as a group test to 70 students in an introductory course in General Psychology at the School of Business and Civic Administration of The City College in New York.

*The Results.* For each of the ethnic groups, for each qualification, medians of the estimates made were computed. These medians are presented in Table I. The averages of the medians were found for the three qualifications introduced. These proved to be:

"All-around average"	18.11
"Serious students"	15.50
"Outstanding athletes"	11.75

The differences among these averages are all statistically significant, being three or more times the standard errors of the differences.



Though the absolute size of the estimate of the saturation points showed significant differences, the patterns of preferences were quite similar. Rank difference correlation coefficients of the order of preference in the group's response for the three types were computed. These proved to be:

	1	2	3
1—serious students	—	.92	.94
2—athletes	.92	—	.92
3—average	.94	.92	—

The thirty groups listed were all included in a study conducted a year

TABLE I

MEDIAN OF THE ESTIMATES OF SATURATION POINTS IN A COLLEGE CLASS OF 100 STUDENTS FOR DIFFERENTLY DESCRIBED REPRESENTATIVES OF DIFFERENT ETHNIC GROUPS

	Serious Students	Athletes	Average
Americans	69.75	43.50	79.33
Arab	8.72	8.45	9.37
Argentine	10.24	9.10	14.00
Canadian	33.50	20.29	42.87
Chinese	8.50	7.77	9.02
Danish	14.13	10.59	16.17
Danirean*	8.38	8.05	9.38
English	38.50	22.25	42.43
Filipine	8.28	8.45	8.98
Finn	13.12	11.00	18.86
French	21.00	10.72	28.00
German	20.00	9.95	21.00
Greek	8.68	9.13	9.78
Hindu	7.92	7.25	7.63
Hungarian	10.29	9.33	13.27
Irish	21.56	15.38	24.50
Italian	13.86	10.71	20.00
Japanese	9.25	8.50	8.02
Latvian	10.12	9.16	11.00
Mexican	9.78	8.93	9.42
Negro	10.85	10.85	11.46
Pirenean*	7.71	7.71	8.20
Polish	13.19	10.56	16.63
Portuguese	9.05	8.86	9.92
Rumanian	11.56	10.56	16.63
Russian	13.78	10.29	18.93
Swedish	17.11	15.68	19.64
Swiss	17.82	13.78	21.72
Turk	8.88	8.16	8.50
Wallonian*	9.41	7.56	8.14

\*The use of non-existent groups was suggested by another study by E. L. H. and has no special significance for this paper.

earlier on another sample of students at the same institution. In the earlier study an eight step test of the social distance type was used (4). Rank difference coefficients of correlation were computed between the order of preference derived on the test of the social distance type and the three orders of preference obtained on the "saturation point" test. These correlations (based on thirty items) were:

with the order for "serious students" .....	.88
for "outstanding athletes" .....	.83
for "all-around average" .....	.94

### DISCUSSION

Our results demonstrate, first, that our new technique is feasible as a means of studying attitudes of groups of subjects towards various national groups. Our test presented no special difficulties to our subjects. As compared with the social distance test, it avoids the apparent inconsistencies which at times disturb more intelligent respondents. There is no need to indicate rejection of a group from a given step of social intimacy when one is aware of individual exceptions. The closer approximation of the "test-set" to the life situation makes responding somewhat easier for careful subjects.

Different estimated saturation points were obtained for different national classifications, and the high inter-correlations which we have obtained indicate high reliability of the relative positions of the median estimated saturation points.<sup>1</sup> The high correlation between the estimated saturation points for average students and the social distance scores indicates that at least some forms of this test can be readily used as a substitute for the Bogardus test. As such a substitute, it would have the advantage of greater flexibility for research purposes mentioned earlier. In addition, it may have an educational advantage. The objection to attitude research with younger children or uncritical adults that is so frequently made, i.e. that the instruments "suggest unpleasant things" to peoples' minds, is not applicable to this approach. There is no "suggestion," for example, that any ethnic group might be excluded from citizenship. It is true that the present instrument may suggest that there is an upper limit to the number of representatives of the different categories which may be tolerated, an idea of a quota that may not previously have existed for the respondents. This seems to the present writers less harmful and absolutely of little importance.

<sup>1</sup>The inter-correlations are, of course, not reliability coefficients. But the fact that they are high indicates that little attenuation was present and that therefore the reliabilities must be also high.

Second, the high inter-correlations which we have obtained are in agreement with the general trend of results previously obtained by other investigators in this field. It has been found repeatedly that the relative positions of different national groups tend to remain substantially the same though different techniques of attitude study are used (5). Our results confirm this trend.

Third, our results indicate some degree of differentiation within national attitudes. This is shown primarily by the fact that reliable differences were obtained between the estimated saturation points for the average students, serious students and outstanding athletes. The differences, however, were slight.

In conclusion, a limitation of this research should be pointed out. Real sociometric research does not readily lend itself to certain types of experimental treatment, e.g. Criswell's painstaking analysis of the sociometry of classrooms in mixed Negro-White schools (3) could only reveal tendencies towards cleavage, but could not estimate the saturation point. The test is in no way a substitute for sociometric research, and the subjects' estimates of saturation points should not be used to draw inferences about actual saturation points in social situations. Questionnaire responses are not necessarily indicative of non-verbal behavior of people, as demonstrated in the study by LaPiere (6). This does not mean, however, that questionnaire responses are meaningless. A verbal (numerical) response is as much a response of an individual as any other form of behavior and permits analysis of individual differences. Moreover verbal responses are, to say the least, among the most important means of social interaction.

*Summary.* A "paper-and-pencil" test was devised based on the sociometric saturation point concept and administered to a sample of 70 college students at one institution. These students estimated the largest saturation point for "all-around average students", next highest for "serious students," and lowest for "outstanding athletes." The differences were all statistically significant.

The order of preference for ethnic groups, defined by the relative size of saturation point estimates, proved to be highly correlated with the order of preference of comparable students, the year before, on a social distance type test. ( $P = .83, .88, .94$ ). (These correlations demonstrate the validity of the saturation point estimates test as an indicator of group preference for ethnic categories.) Several advantages of the saturation point estimates test over the social distance test appeared. These advantages are discussed but do not represent an evaluation of the relative merits of the basic concepts; rather, they stress research utility of the testing technique which is described.

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A SOCIOMETRIC STUDY OF THE RELATIONSHIP OF SOME  
FACTORS TO MUTUAL FRIENDSHIPS ON THE  
ELEMENTARY, SECONDARY, AND  
COLLEGE LEVELS

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INTRODUCTION

Numerous studies have been made dealing with factors related to mutual friendships. These studies have dealt with such factors as I. Q.s, academic achievement, personality traits, chronological age, mental age, and various kinds of interests and attitudes. A review of these studies leaves the reader impressed with the lack of agreement on findings, and also with the generally low relationships found between the factors studied, on the one hand, and the mutual friendships on the other.

This unsatisfactory state of affairs emphasizes the need of further research in the area of inter-personal relationships. Many more facts must be tracked down before psychologists can claim to know much about the highly interesting question of why two or more individuals are attracted to each other.

The present study is another effort to make a contribution to the problem of determining the factors which influence the formation of mutual attractions. It is concerned with academic achievement, intelligence, certain kinds of interests, socio-economic home background, and personality traits. The subjects were elementary school children, high school students, and college students.

The elementary school subjects consisted of children in the Demonstration School associated with the North Texas State College, Denton, Texas, and children in two public schools in the community. These children have been studied with various tests and measurements for five consecutive years, including the grades from the second through the sixth, during the years 1939-1944. Approximately one hundred children have been available on each grade level in the three schools combined. As new pupils came into the schools they were included in the study.

Denton is a town of 12,000 population, located in the agricultural region of North Texas. Nearly all the children included in this study came from homes of Anglo-Saxon stock. Although no exact figures on annual income were obtained, it is quite certain that no child came from a home

having an income of as much as \$8,000 a year.\* The great majority came from homes having an annual income of less than \$3,000. These facts should be kept in mind by anyone interested in generalizing from the results found in this community to other populations.

All the data which are reported in this study on high school students was obtained by Miss Lois Averitt from the public high school of Denton where she is a teacher. She gathered the data as a part of her master's thesis which she was doing under the writer's direction.

The college subjects were all students in the North Texas State College.

#### METHODS AND TESTS USED IN GATHERING DATA

Since the main focus of attention in this report is on pairs of mutual friends (and in the elementary grades on unreciprocated pairs) it will be appropriate at the start to explain how these pairs were determined.

In the elementary school grades the mutual and non-mutual pairs were arrived at on the basis of pupil choices of each other. Some of these pupil choices were held to meet practical needs in the classroom while others were held for research purposes only. On each grade level there were from five to eight different choosing situations in each classroom in the course of a school year. The kinds of choosing situations utilized may be listed briefly as follows: the choosing of companions for having a picture taken, the giving of Christmas presents, the giving of Valentines, selecting a seating companion, choosing a partner of a trip, sketching friends in an art class, giving Easter cards, designating ones preferred as companions to go home with after school, selecting partners for a party, voting for a class honor or office, choosing companions to work with on committees, selecting friends who were to be subjects for ratings on personality traits, giving names of those who would be selected to remain in the room if all others had to leave, writing letters to their teachers describing the personal characteristics of two best friends, giving the names of those preferred as co-workers on an assembly program and a class war project, and listing names of best friends and best leaders throughout the school year.<sup>1</sup>

In most of the choosing situations throughout the five year period, no limit was placed on the number of choices which each child could make.

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\*There are some homes in Denton with greater incomes than this figure, but they were not represented in the particular groups studied.

<sup>1</sup>For a more detailed statement on the nature of these choosing situations and the order in which they were held, the reader is referred to references 2 to 9.



This permitted a more complete measurement of social acceptance that would be possible if choices were limited to one, two, or three children.

In most instances the children were asked to put down their choices in order of preference from first choice on down. All choosing situations were conducted by the classroom teachers.

In order to state each child's general social acceptance in numerical terms the following system of scoring was devised: first choice—5 points, second—4 points, third—3 points, fourth—2 points, fifth—1 point, and all other choices—1 point. Thus if a child in a particular choosing situation received one first-place choice, two second-place choices, and one third-place choice, he would have a score of five, plus eight, plus three, or a total of sixteen. After the raw scores were obtained in this manner, they were converted to per cents by dividing each raw score by the sum total of all the raw scores on each particular choosing situation. At the end of the school year, all of these percent scores for the various choosing situations for each child were added and these totals were then divided by the number of choosing situations held in a particular grade that year. For example, one child in the study received the following series of per cent scores in the eight choosing situations held in his group during one of the school years: 4.5, 1.3, 6, 1, .8, 2.2, 4.9, and 8.9. This makes a total of 29.6. When this total is divided by eight, an average of 3.7 is obtained. This became the final social acceptance score for the year for the particular child mentioned. All other children had similar scores each year of the study. Since all raw scores (like the 29.6 above) were reduced to per cents, it was possible to put all three schools used in the study on a comparable basis regardless of the number of children in a grade or the number of choosing situations held.

The general social recognition scores mentioned above will not be considered in this report. Rather, as previously stated, the focus of attention is to be on the mutual and non-mutual pairs which were obtained by a further differentiation of the data used in arriving at the group recognition scores. Three different degrees of mutual attraction were established and were designated "very mutual," "moderately mutual," and "weakly mutual." Also, two degrees of unreciprocation were established, and were called "largely unreciprocated" and "very unreciprocated." These degrees of mutual attraction and rejection were determined by the extent to which two particular children voted for each other throughout a school year. The point of reference in determining the "very mutual" friendships was the maximum score which one child would give to another if he voted for him in the first place in every choosing situation during the year. Thus, in one



school there were eight choosing situations, which would make possible a maximum score of 40, since each first place vote counted five points. The standard set up for a "very mutual friendship" was that each child should give the other one a total score vote during the year equal to, or greater than, forty per cent of the maximum score. The standard for a "moderately mutual" friendship was that two children should vote for one another to the extent of giving each other a total score vote equal to thirty per cent of the maximum possible score. The standard for a "weakly mutual" friendship was that two children should vote for each other to the extent of twenty per cent of the maximum.

The "largely unreciprocated" group was composed of those combinations of pupils in which one gave the other one a total score vote equal to the standard for a "moderately mutual" friendship, and received in return a total vote which was less than the standard for a "weakly mutual." The "very unreciprocated" group was composed of those combinations of pupils in which one gave the other one a total score vote greater than the minimum standard for "very mutual" and received in return a total vote of less than the standard for a "weakly mutual" attraction.

In the present report only the two extreme groups of "very mutual" and "very unreciprocated" pairs are utilized. Therefore, further details will be given only in respect to these two groups. The extent of differentiation between these two extreme groups is shown by the following data: On the second grade level in one school the very mutual pairs gave each other, on an average, a total score vote of 16. In this same school those children who were classed as "very unreciprocated" gave on an average a score vote of 14 to those whose friendship they sought but they received in return from these children only an average vote 1.2. On the fourth grade level the figures corresponding to those above were 21 for the "very mutual" pairs; while those for the "very unreciprocated" pairs in the fourth grade were 18 average score votes given compared with an average of 2 received. On the sixth grade level in the same school the mutual pairs gave each other an average vote of 19. In this same group the unreciprocated children gave an average score vote of 17 to those whose friendship they desired, but they received in return from these sought-after children only an average score vote of 1.

The figures given above are very typical for all the groups in all the grade levels studied. It seems that with the amount of difference in average scores received by the two extreme groups, as given above, it can be safely concluded that these groups of pupils were well differentiated on the basis

of acceptance on the one hand, and non-acceptance on the other. It should be noted that the "non-accepted" children were not necessarily rejected by those whose friendship they sought; all that can be said for sure is that they were not accepted, as measured by the pupil choices. Those combinations of pupils involving acceptance on the one hand and non-acceptance on the other will be referred to in this report as the "non-mutual pairs" or the "unreciprocated pairs."

As indicated by the title of this article, the chief focus of attention in this report is on factors related to mutual friendships. The question may be raised, then, as to why consideration is also given to the non-mutual pairs in the elementary grades. It will be evident at once that the role of these unreciprocated pairs is to act as control groups in relation to the mutual pairs. The relationship of any factor to mutual friendships can be much better evaluated if we know the extent to which this factor is also found to be related, or not related, to pairs which are definitely non-mutual.

The representation of the two sexes in the mutual and non-mutual pairs in the elementary grades was quite similar from year to year. The facts in this respect for the sixth grade will be given as typical of the other grade levels. The 20 pairs of mutual friends in the sixth grade were composed of 11 girl-girl combinations and 9 boy-boy. The 20 pairs of non-mutuals consisted of 8 cases of a girl unreciprocating the choices of another girl, 10 cases of a boy failing to respond to another boy, and two cases of a girl unreciprocating a boy.

Due to many changes in the pupil population from year to year, as well as to changes in inter-personal attachments among the stable population in each school, there were naturally many changes in the particular pupils involved in the mutual and non-mutual pairs over the successive grade levels.

Although some children in each population studied had a number of mutual friends with whom they could have been paired, no child's name was included more than once in any one distribution. Each child was matched with one who gave him the highest score vote.

The mutual friends on the high school level were selected by Miss Averitt chiefly on the basis of her observation of the couples she had noticed going around together during the last several years. Also several other teachers were asked to name pairs of friends which they had observed. Each student was asked if he or she were a mutual friend of the other one before the pair was included in the study. A total of 30 pairs were obtained consisting of the following combinations: 14 girl-girl, 7 boy-girl, and 9 boy-boy.

On the college level the pairs of mutual friends were selected partly by the writer from students who came into the Personnel Office to take tests, and partly by students in the writer's classes who collected data on mutual friends as a part of their course work. Whereas on the high school level the same students were used in all aspects of the study made, the composition of the groups used on the college level varied some from one test to another. These variations will be noted as the different kinds of data are reported.

#### ACADEMIC ACHIEVEMENT

Academic achievement in the elementary grades was measured by the Gates *Primary Reading Test* in the second grade and by the Stanford Achievement Test in all the remaining grades through the sixth. All raw scores were converted into grade placements. The tests were given at approximately the same time in all the three schools included in the study.

The first use of the data on academic grade placement, as with the other kinds of data collected on the elementary school level, is a comparison between the group averages of the pairs of mutual and non-mutual friends.\* The purpose of this procedure is to determine if the groups composed of mutual pairs were more like each other in their central tendencies than were the non-mutual control groups. This will supply information on group comparisons. Data from use of the correlation method, to be given subsequently, will furnish information on more individual comparisons.

In Table I below the data on the group averages of the two sets of contrasted groups is given.

The findings for the mutual friends given in Table I show that throughout the five-year period these groups were very close together in academic achievement. The largest difference, which is only three-tenths of a grade level, is found in the fifth grade. These very small differences can certainly leave no doubt about the high degree of similarity between the pairs of mutual friends when they are compared as groups.

When attention is turned to the unreciprocated pairs in Table I, it can be seen that there is an increasingly greater difference over the successive grade levels between the group averages of the "accepted" children and the corresponding figures for the unreciprocated halves of these pairs. Also the differences obtained between these groups of accepted and non-accepted

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\*Throughout this study the members of the pairs of mutual friends were arranged in a chance order, i. e., no selective factor determined which half of all the pairs would be compared with the other half in each distribution.

TABLE I.

A COMPARISON OF GROUPS OF MUTUAL AND OF NON-MUTUAL FRIENDS IN AVERAGE GRADE PLACEMENTS IN ACADEMIC ACHIEVEMENT IN ELEMENTARY GRADES II TO VI

Grades	Mutual Friends			Unreciprocated Pairs			Differences	
	No. of Pairs	Groups	Gr. Pl.	No. of Pairs	Groups	Gr. Pl.	Between Mut. Friends	Between Unrec. Pts.
2nd	17	1	2.5	20	Acc.*	2.9	.1	.4
		2	2.6		Unrec.	2.5		
3rd	17	1	3.7	18	Acc.	3.9	.1	.5
		2	3.6		Unrec.	3.4		
4th	18	1	5.4	20	Acc.	5.2	.1	.6
		2	5.3		Unrec.	4.6		
5th	20	1	6.4	23	Acc.	6.5	.3	.9
		2	6.1		Unrec.	5.6		
6th	20	1	6.8	20	Acc.	7.3	.2	1.3
		2	6.6		Unrec.	6.0		

\*Acc. means accepted.

Unrec. means unreciprocated.

children are consistently greater than the differences obtained between the groups of mutual friends.

To what extent are the differences between the group averages of the unreciprocated pairs obtained on the successive grade levels statistically reliable? The answer is that none of these differences reaches the highest degree of statistical reliability. Using the formula  $\sigma_{dM} = \sqrt{\sigma^2_{M_1} + \sigma^2_{M_2}}$  the standard errors of the differences between the means were determined. The largest difference—that of 1.3 on the sixth grade level—proved to have a critical ratio of 2.7. This lacks only a small fraction of being up to the standard of 3 required for “complete statistical reliability.”

The critical ratios for the differences between the groups of unreciprocated pairs on the other grade levels ran as follows: second grade 1.7, third grade 1.8, fourth grade 1.98, fifth grade 2.09. The difference in the fifth grade is significant at the five per cent level; the others fall below this standard of reliability.

It must therefore be concluded from the data at hand that there is very little assurance of a true difference in level of academic achievement between the two groups used in this study. This means that, although the groups of mutual friends were found to be very similar in academic achievement,—this similarity cannot be considered very significant as long as contrasted groups in respect to mutuality of relationship are not reliably different in the same measurement.

How shall the marked similarity of the mutual friends in academic attainment be interpreted? It seems probable that this similarity is due much more to the intelligence factor than to the factor of interpersonal attractiveness. In the succeeding section it will be shown that the groups of mutual friends were found to be very much alike in I. Q.s. It is well known that there is a high correlation between scores on the Stanford Achievement Test and I. Q.s. Throughout the five years of this follow-up study the coefficients of correlation between grade placements on the Stanford Achievement Test and I. Q.s have ranged from .60 to .80.

It also seems quite probable that the superiority of the accepted children over those who vainly sought their friendship is due primarily to the intelligence factor since, as the next section will show, these "accepted" groups were found to be consistently superior in intelligence to the non-accepted groups. Being superior in intelligence they would certainly be expected to score higher on the Stanford Achievement Test irrespective of lack of mutual attraction to each other.

The fact shown in Table I that there is a progressively greater difference between the groups of "accepted" and the groups of non-accepted pairs in their academic attainments over the five year period is an interesting finding, but its proper interpretation is not certain. However, a good guess would be that this finding is also due to the influence of the intelligence factor, since it is quite likely that as children pass through the school system the brighter children become progressively superior in school achievement over those who are not so bright.

The above remarks in respect to the un-critical role of academic achievement in determining mutual attractions are born out by results from the correlation technique, using the Pearson Product Moment method. These data are given in Table I below.

A survey of the coefficients given in Table II reveals that all of them

TABLE II  
CORRELATIONS BETWEEN THE ACADEMIC ACHIEVEMENTS OF PAIRS OF MUTUAL FRIENDS AND  
PAIRS OF UNRECIPROCATED FRIENDS IN ELEMENTARY GRADES II TO VI

Grades	Mutual Pairs		Unreciprocated Pairs	
	No. of Pairs	Coefficients	No. of Pairs	Coefficients
2nd	18	.32 $\pm$ .13	21	-.16 $\pm$ .16
3rd	17	.19 $\pm$ .15	18	.24 $\pm$ .14
4th	18	.23 $\pm$ .16	20	.18 $\pm$ .14
5th	20	.36 $\pm$ .12	23	.16 $\pm$ .16
6th	20	.17 $\pm$ .14	20	.13 $\pm$ .15



are low, and of little or no statistical significance. There is no consistent pattern evident. With the exception of the third grade level, all the coefficients for the mutual friends are higher than those for the unreciprocated friends, but these differences are too small to make much of. The fact that all but one (second grade level) of the coefficients for the unreciprocated pairs are positive, and differ from those obtained for the mutual friends by only a few points, forces the conclusion that degree of similarity in academic achievement was of practically no consequence in determining the mutual friendships on the successive grade levels.

In order to make a further check on the relation of academic attainment to friendship formation, it was decided to select 30 pairs of the most closely mutual friends over the entire five year period, as determined by the size of total scores given to each other in the choosing situations; also 30 pairs of the most non-mutual combinations over the five year period as determined by the differences in pupil-choice scores given each other. After these groups were assembled, correlations were run between the respective pairs.\* The coefficient for the mutual pairs turned out to be  $.35 \pm .10$ , and that for the unreciprocated pairs  $-.10 \pm .12$ . The figure obtained for the mutual friends misses being significant at the five per cent level by only one point.

The difference between the coefficients given above is more marked than between any found on a single grade level, with the exception of the second grade. This could be interpreted to mean that the degree of association between academic achievement and friendship formation depends some upon how well the cases studied are selected in respect to degree of mutual attachment, or the lack of it. However, the point previously made in respect to the role of intelligence in relation to academic achievement must still be the main emphasis in interpretation. The correlative data on intelligence for the pairs of highly selected subjects will be given in the next section.

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\*In order to run these correlations it was necessary to devise a scheme whereby all the grade placements over the five year period could be put on a common scale. This was done in the following manner: The normal grade placement at the time a test was given was assigned a score of 1. The next successive three months of grade placements were assigned a score of 1.1; the next three following this point were assigned a score of 1.2. This procedure was continued until the entire range of grade placements had been covered. The same procedure was followed to include the range of grade placements below the norm for a test at the time it was given. The assigned scores, ranging from  $-.5$  to  $+2.3$ , constituted the class intervals for running the correlations, without any further smoothing.

On the high school level the grade averages for the thirty pairs of friends were obtained for the spring semester of 1945. The Pearson  $r$  was calculated to determine the relationship between the pairs of friends in academic achievement. This was found to be  $.46 \pm .09$ , which is higher than any coefficient found in the elementary grades for academic achievement as measured by standardized tests.

On the college level, grade averages were also determined for thirty pairs of friends for the spring semester of 1945. These thirty pairs consisted of the following combinations: 20 girl-girl, 9 boy-boy, and 1 boy-girl. Using a class interval of .3 of a grade point, the Pearson  $r$  was calculated for these pairs. The coefficient proved to be  $.14 \pm .12$ . This is the lowest relationship found for academic achievement between mutual friends in the entire study.

What may be concluded from all the foregoing data? The answer is: Academic achievement cannot be said to play much of a role in friendship formation, particularly in view of the lack of clear cut distinctions between the results for the mutual as compared with the non-mutual friends on the elementary school level. However, there must be at least a small amount of association between academic proficiency and mutual friendships since all the coefficients obtained were positive, and the one for the high school students was as high as .46. The point should be emphasized, though, that the weight of the evidence as a whole indicates that measures of academic achievement cut too small a segment into the total personality for the results to bear much relationship to the complex behavior variables determining inter-personal attractions.

#### INTELLIGENCE

General intelligence in this study was measured by the California Tests of Mental Maturity in the second grade, by the Kuhlmann-Anderson Tests in the third and fourth grades, by the Otis Self-Administering Test of Mental Ability in the fifth grade, and the Pintner Intermediate Test in the sixth grade. In the case of those children who were present for successive grade levels, their I. Q.s were taken as the average of the I. Q.s made on all tests administered to them.

The comparisons of the groups of mutual friends with the corresponding groups of unreciprocated pairs in I. Q.s are given in Table III.

The above data show that the respective groups of mutual friends throughout the five year period had I. Q. averages which were very similar. The largest difference in averages, which is only 4, is found on the sixth grade level. It is evident that these pairs of mutual friends, when compared as total groups were very much alike in intelligence.



TABLE III  
A COMPARISON OF GROUPS OF MUTUAL AND GROUPS OF UNRECIPROCATED FRIENDS  
ON THE BASIS OF AVERAGE I. Q.'S

Grades	Mutual Friends			Unreciprocated Pairs			Differences	
	No. of Pairs	Groups	I. Q. Ave.	No. of Pairs	Groups	I. Q. Ave.	Between Friends	Mut. Unrec. Prs.
2nd	18	1	107	22	Acc.	112	1	15
		2	106		Unrec.	97		
3rd	18	1	108	20	Acc.	111	2	9
		2	110		Unrec.	102		
4th	18	1	110	20	Acc.	110	1	7
		2	105		Unrec.	103		
5th	21	1	105	24	Acc.	106	3	8
		2	102		Unrec.	98		
6th	20	1	105	20	Acc.	109	4	14
		2	101		Unrec.	95		

When attention is turned to the unreciprocated pairs, it is evident at once that the differences here are considerably greater than between the mutual groups, and that all the differences are in favor of the "accepted" groups.

The statistical reliabilities of the differences between the means of the unreciprocated pairs were calculated. From the standpoint of a critical ratio obtained by dividing the differences between the two sets of means by the S. E. of these differences, only two proved to have a very high degree of statistical reliability. These were the differences obtained on the second and on the sixth grade levels. In these grades the critical ratios were 3.9 and 3.6 respectively. On the other grade levels the critical ratios were 2.5 in the third grade, 1.75 in the fourth, and 2.0 in the fifth. The differences found in the third and fifth grades should be regarded as quite reliable, since there are only a few chances in a hundred (1 to 5) that such differences could be due to chance factors.

To what extent are the same results shown by the correlation method? The answer to this question is given in Table IV.

A brief survey of Table IV reveals that the coefficients for the mutual friends are higher than those for the unreciprocated pairs on all grade levels except the fifth. The greatest differences were found on the second and third grade levels where small negative coefficients were obtained for the non-mutual pairs. The difference between the two groups on the fourth grade level is insignificant. Likewise the difference in the fifth grade is too small to make much of, but it is surprising that the unreciprocated pairs should

TABLE IV.  
PEARSON  $r$  CORRELATIONS BETWEEN THE I. Q.s OF PAIRS OF MUTUAL FRIENDS AND  
BETWEEN PAIRS OF UNRECIPROCATED FRIENDS IN ELEMENTARY GRADES II TO VI

Grades	No. of Pairs	Mutual Friends Correlations	No. of Pairs	Unreciprocated Pairs Correlations
2nd	18	.44 $\pm$ .13	22	-.08 $\pm$ .15
3rd	18	.48 $\pm$ .12	20	-.21 $\pm$ .14
4th	18	.32 $\pm$ .14	20	.27 $\pm$ .13
5th	21	.28 $\pm$ .13	24	.35 $\pm$ .11
6th	20	.41 $\pm$ .12	20	.19 $\pm$ .14

come out on this grade-level with a higher coefficient than that for the mutuals.

Only one of the coefficients in Table IV is equal to four times the size of the P. E. This is the one for the mutual friends on the third grade level. The one on the sixth grade level for the mutual friends misses statistical reliability for only a few points. None of the coefficients for the unreciprocated pairs even comes close to being statistically reliable.

In order to make an additional check on the relation of I. Q.s to friendship formation the same procedure was followed as described under the preceding section, i. e., thirty pairs of the most mutual friends over the entire five year period were compared with thirty pairs of the most unreciprocated pairs over the same period. With a few exceptions, due to gaps in the data, the same pairs were used for the I. Q. comparisons as were used for the report on academic achievement. When these groups were formed it was found that the I. Q.s for the mutual pairs ranged from 75 to 128, and for the unreciprocated pairs the range was from 72 to 128. A class interval of 4 I. Q. points was used in running the Pearson  $r$  coefficients. These proved to be .46 $\pm$ .09 for the very mutual friends and .02 $\pm$ .13 for the non-mutual pairs.

Considering the highly selected nature of the above groups from the standpoint of mutual attractions on the one hand and the lack of it on the other, the obtained coefficients should be considered quite significant in emphasizing the greater association likely to be found in other similar populations between the I. Q.s of those children who are close friends as compared with those who are not mutually attracted to each other.

The point was made in the previous section that the small amount of similarity found between the mutual friends in academic achievement might be interpreted as being due more to the intelligence factor than to the direct or special influence of academic achievement, as such. Of course, this point could easily be pushed too far, since there is a reciprocal relationship be-

tween academic success and obtained I. Q.s. Not only is the child with the relatively high I. Q. more likely to succeed in school, but also the child who, for various reasons, is able to master school requirements is in a relatively better position to do well on the intelligence tests. Furthermore, it is well known that there are numerous factors, such as personality traits and home influences, which help to determine academic attainment, aside from the intelligence factor. However, more consistently high correlations have been found between I. Q.s and academic achievement than have been found between intelligence and any other single measurement; therefore, it is necessary to emphasize that much of whatever similarity is found between mutual friends in academic attainments must be related to, or result from, the intelligence factor. The "good" and "high" coefficients which have been found in this five-year study (reported in previous section) between Stanford Achievement Test results and I. Q.s among the elementary school children, as well as the data of Table III, support the above point.

There is just a shade of evidence that the intelligence test results were a little more closely related to the process of friendship formation than were the academic achievement results. This shade of evidence consists of the following points:

1. Whereas four of the five differences in average I. Q.s between the groups of non-mutual friends were characterized by a "high" degree or a "good" degree of statistical reliability, only one of the corresponding differences for academic achievement even approached a high degree of reliability.

2. Four of the five correlations for I. Q.s between the mutual friends were higher than corresponding coefficients obtained for academic achievement. Two of these differences amounted to as much as 24 and 29 points.

3. The correlation for the 30 pairs of highly selected mutual pairs over the five year period for intelligence was .46, as compared to .35 for academic achievement, with practically the same groups.

The above trend for the elementary school children is given a little support from the results with the thirty pairs of college students. They showed a coefficient of  $.28 \pm .11$  for I. Q.s as compared with the .14 for academic grade points reported in the preceding section.

This slight trend, however, was not found among the high school students. In this population the coefficient for the friends in respect to I. Q.s was exactly the same as for the academic grade points, i. e.,  $.46 \pm .09$ .\*

\*The I. Q.s of the high school students ranged from 82 to 130, with a mean of 105. Thus they may be considered typical of unselected high school students.

Admitting that the data for the high school students upset the above mentioned trend, and to some extent invalidates it, what interpretation might be placed upon the shade of evidence which still remains in favor of the view that general intelligence is a little more related to the process of friendship formation than is academic achievement? The answer may lie in the fact that the measurements of general intelligence sample a little more comprehensive capacity than do the measurements of academic success. It seems reasonable to suppose that the broader a capacity is, the more likelihood there is that it will bear some relation to the complex capacities involved in winning friends.

In concluding this section the point may be emphasized that all the data show a little, and in some groups a substantial amount of, relationship between the I. Q.s and the mutual friendships. Just how discriminating a role the intelligence factor plays is impossible to say, since friendships are formed on the basis of total personalities rather than any single trait. Furthermore, the answer to this question is made more difficult because of the fact that some of the groups of non-mutual pairs on the elementary school level also showed positive correlations. However, in spite of isolated instances in which two persons markedly different in intelligence are attracted to each other, the fact seems to be that individuals of all ages are more likely to find satisfying friendships among those approximately equal to themselves in general intelligence. This means that friendship formation will be aided to some extent during childhood and youth by seeing to it that a particular child or youth is placed in a school, and in the kind of a neighborhood, which will furnish the maximum number of associates who are on, or close to, his intellectual level.

#### INTERESTS

Interests in the elementary grades were measured by an "Interest Inventory for Elementary Grades" by Mitchell Dreese and Elizabeth Mooney.\* This was given in the sixth grade only. The Dreese and Mooney Inventory is sub-divided into ten parts as follows: Reading, Movies, Radio, Games and Toys, Hobbies, Things to Own, School Subjects, People, Occupations, and Activities. It contains more than 225 items. The subjects are asked to respond to each item by checking one of the following reactions: Like, Dislike, Indifferent, Unknown. The norm on the scale is taken as O.

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\*Distributed by the Center for Psychological Service, George Washington University, Washington, D. C.

The relation of the total scores on this inventory to the mutual and the non-mutual pairs is given in Table V.

TABLE V.

A COMPARISON OF GROUPS OF MUTUAL AND OF NON-MUTUAL FRIENDS IN THE SIXTH GRADE ON THE BASIS OF DEGREE AND RANGE OF INTERESTS

Mutual Friends			Non-Mutual Pairs			Differences	
No. of Pairs	Groups	Int. Score	No. of Pairs	Groups	Int. Score	Between Mutuals	Between Unrec. Pairs
18	1	-88	18	Acc.	-75	4	16
	2	-84		Unrec.	-91		

It can be seen at once from the above table that the groups of mutual friends were a little more similar in their average scores on the interest scale than were the unreciprocated pairs. However, when the total range of scores made on this scale is considered, i. e., +144 to -355, the small differences shown above are of no consequence. Also the difference between the non-mutual pairs has no statistical significance, since the critical ratio was only .64. It must be concluded, therefore, that, although the groups of mutual friends were very similar in their average scores on the interest scale,—this fact is of little significance since the unreciprocated pairs were also quite similar.

Using a class interval of 25 points, the Pearson  $r$  was determined for the mutual friends on the interest scale. This proved to be  $.30 \pm .14$ . The parallel figure for the unreciprocated pairs was  $.31 \pm .14$ . These coefficients, being practically the same size for the two contrasted groups, show that, although a small degree of relationship was found between the interest scores and the mutual friendships, the significance of it (little as it is) is negated by the fact that the non-mutual pairs showed the same degree of relationship. This finding must be interpreted to mean that the kinds of interests measured by the particular scale used played an indiscriminating role in determining the mutual friendships.

It may be that kinds and degrees of interests do not have as much to do with determining friendships as is commonly supposed, but, on the other hand, it may be the Dreese and Mooney scale was not well adapted for use with the groups studied. A large number of the children rated themselves very low on the scale, and only a few made anything like high scores. It can be observed from Table V that all four of the groups listed have negative scores, which means that they averaged below the norm for the scale. It is possible that another scale for measuring interests would have produced quite different results.



Of course, the results on the measurement of interests must be considered much less conclusive than the results on academic achievement and intelligence, since the interest data is confined to one grade level.

On the high school and college levels the only interests measured were those bearing on occupational preferences. These interests were measured by the Kuder Preference Record. Those familiar with this scale will recall that it measures vocational interests in nine different areas, namely: Mechanical, Computational, Scientific, Persuasive, Artistic, Literary, Musical, Social Service, and Clerical. The findings from the use of this scale with the high school students are given in Table VI.

TABLE VI.  
PRODUCT MOMENT CORRELATION COEFFICIENTS SHOWING DEGREES OF RELATIONSHIP  
BETWEEN THIRTY PAIRS OF HIGH SCHOOL MUTUAL FRIENDS ON THE  
KUDER PREFERENCE RECORD

Mec.	Com.	Sci.	Per.	Art	Lit.	Music	Soc.	Cler.
.13±.12	.24±.11	.09±.12	.08±.12	.36±.10	.20±.11	.28±.11	.16±.12	.54±.08

It will be evident at once from Table VI that most of the coefficients are quite small. The one for Artistic interest is of fair size, but it lacks a little of being completely reliable statistically. The highest coefficient is the one for Clerical interest. This is of substantial size, even though not high, and is more than four times its P. E.

How do the findings for the high school students compare with those for the college students? For this comparison thirty pairs of college students were available. These thirty pairs were composed of the following combinations: 19 girl-girl, 1 boy-boy, and 10 boy-girl. Table VII gives the Rho coefficients for the college friends on the Kuder test.

TABLE VII.  
RHO CORRELATION COEFFICIENTS SHOWING DEGREES OF RELATIONSHIP BETWEEN THIRTY  
PAIRS OF COLLEGE MUTUAL FRIENDS ON THE KUDER PREFERENCE RECORD\*

Mec.	Com.	Sci.	Per.	Art	Lit.	Music	Soc.	Cler.
.04±.22	.03±.23	.67±.13	.18±.22	.11±.23	.38±.20	.28±.22	.49±.17	.03±.23

(\*Coefficients are based on raw scores, not percentiles.)

On the whole the college friends did not show much more relationship in their vocational interests than did the high school students. There are, however, several significant contrasts between the two groups. The fairly good correlation on Clerical interests found for the high school students drops to zero for the college friends. On the other hand the zero coefficient



found for Scientific interest among the high school friends is raised to .67 for the college students. This is by far the highest relationship found in either group. Also the coefficients of .38 for Literary interests, and of .49 for Social Service interests are high enough to indicate positive trends in these areas.

The lack of agreement between the high school and college results, plus the fact that all but a few of the coefficients are quite low, makes the conclusion inevitable that no extensive or very significant associations were found between the vocational interests measured by the Kuder Preference Record and mutual friendships.

However, the fact that most of the coefficients turned out to be low should not distract attention completely from the few which were quite high, especially those on the college level where vocational interests are generally much more definite than on the high school level. It is possible that similarity in degree of scientific interests is a factor of some importance in drawing college students together. At least when present to a marked degree, a scientific interest does often cause a person to have a little different slant on the world, and this in turn may exert some influence on the kind of persons who interest him. Also a social service motivation, if very strong, gives a person a somewhat unique attitude toward the world, and may very well exercise some influence upon the kind of people with whom he would desire to form intimate associations. It seems possible that, of the nine vocational interest areas measured by the Kuder Record, those designated "Scientific" and "Social Service" involve the broadest attitudes, and thus could conceivably be more influential in affecting friendship formation.

If this postulate can be accepted, the above results would be in line with the point made in previous sections of this report on the need of measuring rather comprehensive abilities, or aspects of the self, in order to even expect to find much association between the thing measured and the complex capacity involved in inter-personal attraction.

The conclusion may be drawn from the foregoing data that, although most high school and college friendships are formed without much reference to occupational interest areas, it is also possible that (especially among college students) a few occupational interest areas, which are more likely to produce generalized attitudes, may exert considerably more influence in this respect than do others.

### HOME BACKGROUND

The data on home background among the elementary school children were obtained by use of the Minnesota Home Status Index by Alice M. Leahy. This scale is sub-divided into six parts as follows: Children's Facilities, Economic Status, Cultural Status, Sociality, Occupational Status, and Educational Status. It was administered only on the fifth grade level. The children filled out the form in school with the help of their teachers and the school principals, all of whom were quite familiar with most of the homes from which the children came.

Do pairs of mutual friends come from more similar home backgrounds than do non-mutual pairs? From the standpoint of group comparisons, this question is answered in Table VIII.

TABLE VIII.  
A COMPARISON OF GROUPS OF MUTUAL AND NON-MUTUAL FRIENDS IN THE FIFTH GRADE  
ON THE BASIS OF SOCIO-ECONOMIC HOME BACKGROUNDS

Mutual Friends			Unreciprocated Pairs			Differences	
No. of Pairs	Groups	Home Back-Ground	No. of Pairs	Groups	Home Back-Ground	Between Mutuals	Between Unrec. Pairs
19	1	— .33	21	Acc.	.08	.20	.63
	2	— .13		Unrec.	— .55		

Table VIII shows that the groups of mutual friends were very much more alike in home background than were the groups composed of the non-mutual pairs. The difference in average scores between the two latter groups is more than three times that between the former groups. Also the difference between the non-mutual groups has a very high degree of statistical reliability, since the critical ratio proved to be 3.31.

This evidence on the greater similarity of mutual over non-mutual friends in socio-economic home background is further supported by results with the correlation technique. The Pearson  $r$  coefficient for the pairs of mutual friends was found to be  $.33 \pm .13$  while the coefficient for the unreciprocated pairs proved to be only  $.02 \pm .15$ . Although the relationship found for the mutual pairs is not high, it does show a definite contrast to the zero coefficient found for the control group.

It should also be pointed out that the correlation between the home background scores of mutual friends would undoubtedly be higher in a more heterogeneous population in regard to socio-economic home backgrounds. The scores obtained from the Leahy scale in this study ranged from +1.60 to —1.45 sigma scores, in a total possible range given on the scale of from

+2.9 to -2.1. In one of the schools studied only two children were above the national norm given for the scale. With such a restricted range it is inevitable that the correlations obtained would be lower than would be the case if the distribution of home backgrounds was much wider.

The close similarity in home background scores made by the groups of mutual friends, together with the statistically reliable difference obtained between the unreciprocated pairs, as well as the contrast of .33 to .02 between the coefficients for the mutual as compared with the non-mutual pairs, hang together in showing that, even in the fairly homogeneous groups studied, the socio-economic level of the homes involved must have played a role greater than chance alone would allow, in determining the mutual friendships. Of course, association does not necessarily mean causation, but it seems reasonable in this case to assume that it does. Observation certainly supports the research finding.

Pursuing the point alluded to in the preceding sections in respect to the need of measuring rather comprehensive factors or abilities in order to identify forms of behavior related to friendship formation, it will be evident at once that what is measured by the Leahy scale may be called a "comprehensive factor." The socio-economic and cultural level of a child's home is of sufficient importance, even within a limited range of home backgrounds, to leave a small measurable imprint upon the process of friendship formation.

(The above point supports the common practice of parents trying to live in neighborhoods made up of their own class of people, and of sending their children to a school which draws its population largely from homes of their own socio-economic and cultural level.)

#### PERSONALITY TRAITS

On the elementary school level personality traits were measured by means of the California Test of Personality. This is a self-rating scale which is sub-divided into two major sections and each of these is, in turn, sub-divided into six smaller sections. The first major division is Self-Adjustment, which has the following parts: Self-Reliance, Sense of Personal Worth, Sense of Personal Freedom, Feeling of Belonging, Withdrawal Tendencies, and Nervous Symptoms. The second main division is Social Adjustment, which has the following parts: Social Standards, Social Skills, Anti-Social Tendencies, Family Relations, Occupation Relations, and Community Relations. A total score is obtained, and only this total score is used in this study. Data from the California test was obtained on the fourth and sixth grade

levels. A report of the findings on these two grade levels in respect to group comparisons is given in Table IX.

TABLE IX.  
A COMPARISON OF GROUPS OF MUTUAL AND GROUPS OF UNRECIPROCATED FRIENDS  
ON THE BASIS OF PERSONALITY SELF-RATINGS

Grades	Mutual Friends			Unreciprocated Pairs			Differences	
	No. of Pairs	Groups	Percent. Ranks	No. of Pairs	Groups	Percent. Ranks	Between Mutuals	Between Unrec. Prs.
4th	18	1	65	20	Acc.	61	7	12.0
		2	58		Unrec.	49		
6th	20	1	55.7	19	Acc.	53.4	5.2	12.9
		2	50.5		Unrec.	40.5		

A brief study of Table IX shows that the two groups of mutual friends on both grade levels were more alike in their central tendencies than were the two contrasted groups of non-mutual pairs. However, not much can be made of this greater similarity on the part of the mutual groups as indicating a discriminating role for the personality self-ratings in the friendship formations, since the differences between the non-mutual pairs on both grade levels are very unreliable statistically. On the fourth grade level a critical ratio of 1.7 was found for the difference between the means, and on the sixth grade level the corresponding ratio was 1.6. In other words, there is very little assurance that a true difference exists between groups of definitely non-mutual friends in personality self-ratings on the California test. This being true it is obviously impossible to assume that the personality self-ratings played much of a part in determining the mutual friendships, even though as groups these pairs have quite similar scores.

Results obtained from the correlation method bear out the preceding statement in regard to the undiscriminating role played by the personality self-ratings in the mutual friendship formations. On the fourth grade level the coefficient for the pairs of mutual friends turned out to be  $-.12 \pm .15$ , while the coefficient for the unreciprocated pairs was  $.05 \pm .15$ . From such small figures it can only be concluded that the relationship on the personality scores for both groups was nil. On the sixth grade level the coefficient for the mutual pairs was found to be  $.22 \pm .14$  and that for the unreciprocated pairs  $.34 \pm .13$ . Both of these figures are noticeably higher than the corresponding figures found two years earlier on the fourth grade level.

However, the important point to notice in these data is that the coefficients for the unreciprocated pairs on both grade levels are actually a little higher than for the mutual pairs. These differences, small as they are,

nevertheless add emphasis to the lack of association between the personality self-ratings and the mutual attractions.

Turning to the results with the high school students, the question may be asked whether older age groups show any more relationship between personality ratings and mutual friendship than was found among the elementary school children. The scale used with the high school students was the Bell Adjustment Inventory. The responses to this scale give the subject a score in four different areas, namely, Home, Health, Social, and Emotional. Table X gives the coefficients found in each of these aspects of adjustment.

TABLE X.  
PEARSON PRODUCT MOMENT CORRELATION COEFFICIENTS SHOWING DEGREE OF  
RELATIONSHIP BETWEEN THIRTY PAIRS OF HIGH SCHOOL MUTUAL  
FRIENDS ON THE BELL ADJUSTMENT INVENTORY

Home	Health	Social	Emotional
.08 ± .12	.03 ± .12	.49 ± .09	.49 ± .09

The marked contrast between the results in the Social and Emotional areas as compared with those in the areas of Home and Health is immediately apparent from Table X. The two coefficients of .49 are considerably higher than those found for mutual friendships in the elementary grades with the California scale. Also both the .49 coefficients are more than four times the size of their P. E.s. Apparently the relation between personality self-ratings and inter-personal attractions depends a good deal upon what traits are measured, and also upon which particular measuring rod is used.

The latter point is born out by results obtained from the use of an unstandardized personality rating scale composed by the writer, and designated "A Scale for Measuring Capacity to Win Friends." The traits included in this scale were drawn from an extensive study of research articles dealing with factors related to friendship formation. The particular traits selected for use in this scale were as follows: Praising and complimenting others, Initiating discussions about topics of general interest and about the particular interests of individuals, Tolerance and adaptability, Group association and group participation, Stimulating people to higher levels of behavior, Dependence on others for assistance and emotional support, Dependability, Being a source of new experience to others, Emotional control, Helpfulness and social service motivation, Health and physical vigor, Personal appearance, Abiding by group customs and morals, and Attitude toward one's self.\*

\*These fourteen traits have since been consolidated into ten.



These fourteen traits, with some descriptive explanations, were put on a ten point scale. Each one of the 60 high school students (30 pairs) rated himself on this scale and also rated his friend. The two ratings on each trait were then averaged for each student. These average scores were then added to arrive at a composite total score for each student. These total scores ranged from 65 to 130. The Pearson correlation obtained for these scores on the thirty pairs of friends proved to be  $.74 \pm .05$ . This is by far the highest relationship found for any of the measures in the entire study.

The above mentioned rating scale was also administered to 24 pairs of college friends, consisting of the following combinations: 16 girl-girl, 7 boy-girl, and one boy-boy. The college students not only rated themselves on the scale, but were also rated by one of their friends, and in more than half the cases ratings were also obtained from a second friend. The score assigned to each student on each of the fourteen points on the scale was a composite of his own rating and the ratings of his one friend, or of his two friends, when two were available. All of the separate scores were added to make a composite total score. These total scores ranged from 65 to 120. Using a class interval of five points, the Pearson  $r$  for the twenty-four pairs of college pairs was found to be  $.52 \pm .10$ . This is lower than the coefficient found for the high school students, but it is, nevertheless, substantial, and is four times the size of its P. E.

The significance of the above findings with the "Scale for Measuring Capacity to Win Friends" receives added emphasis from some additional data obtained on the college level. Forty-three pairs of mutual friends took the adult form of the California Test of Personality. None of these subjects were the same as those included in any other part of this study. The group consisted of approximately 60 per cent girl friends, 20 per cent boy friends, and 20 per cent boy-girl friends. All were students in the North Texas State College. Using the total scores derived from this "test," the Pearson  $r$  coefficient for the 43 pairs of friends proved to be only  $.15 \pm .10$ . This degree of relationship is very similar to the correlations previously reported for the California scale on the elementary school level.

What interpretation shall be placed upon the finding that results with the "Scale for Measuring Capacity to Win Friends" showed a much higher relationship between mutual friends than was shown by results with the stand-

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On both the high school and college levels the students who checked this scale were assured that their friends would not see the ratings made upon them, and this assurance was not violated.



ardized personality inventories, especially the California scale? It seems that this higher relationship must be accredited primarily to the fact that the traits included in the above scale are more important in determining interpersonal attractions than are those which are measured by the standardized personality inventories. This is not surprising since the traits in the above scale were selected with this purpose in mind, and were drawn, as previously stated, from research studies dealing with factors related to friendship formation. A point worthy of particular mention in this connection is the number of character traits which were included in the friendship scale—traits such as dependability, trustworthiness, cooperative attitudes, stimulation of others to live up to their better selves, and social service motivation. It seems clear to the writer that psychologists will never make much progress in explaining friendship attachments as long as they confine themselves to studies of the usually designated personality traits, such as introversion-extroversion, dominance, nervousness, emotionality, neuroticism, etc. Much attention must also be given to more strictly character traits.

A further point having a bearing on the higher coefficients reported above is that the trait scores used were the averages of self-ratings and the ratings of one or more friends on the same traits. It seems logical to suppose that these trait ratings were more valid than would be true of self-ratings alone, such as are obtained from the standardized inventories.

It will also be apparent that the "Scale for Measuring Capacity to Win Friends" gets at a rather large segment of personality, thus carrying out the point previously emphasized in respect to the importance of measuring rather comprehensive cross-sections of the total self in order to hope to find relationships with the complex business of friendship formation.

Of course, the California Test of Personality, as well as other similar inventories which result in scores on "emotionality," "neuroticism," etc., also measure some broad aspects of the total personality. However, the generality of a personality measuring stick is not the only thing to consider. The factor of its particular application to the problem at hand is also essential.

It is well known that the great majority of personality inventories (as well as attitude and interest scales) now on the market, including the California "test," have not been constructed for the primary purpose of measuring capacity to win friends. This is no doubt the chief reason why the use of such inventories in research studies such as the present report and others by Challman (11), Hagman (14), Koch (18), Pintner and Forlano and Freedman (21), Richardson (22), Vreeland and Corey (28), and Van Dyne

(27), has usually resulted in low correlations between "personality" as measured by these scales and inter-personal attractions. It is important, then, that a measurement of personality be selected, or constructed, for a particular task at hand, whether it be a study of traits most important in friendship formation, or some other process, or life situation.

It is highly probable that personality inventories would prove much more useful if they were made with more specific purposes in mind, such as to determine the most important traits necessary for success in kinds of work involving a high degree of routine as compared with work requiring a high degree of responsibility and initiative. Also measuring techniques to determine the personality requirements for certain kinds of leadership roles, for successful adjustment in marriage, for adaptability to military careers, as well as other limited areas of behavior, might well be developed. Those familiar with the field will know that efforts along these lines are already being made. It would seem that such efforts should be encouraged, partly to develop more useful instruments, and partly because it would be possible to validate such scales to a much higher degree than is possible with the more general inventories. Although a person who takes one of these more general inventories and is told his percentile rank on "thinking introversion," "masculinity-femininity," "depresssion," etc., may be advised about what these ranks mean in certain practical situations, the degree of relationship between these traits and those practical situations has seldom been definitely established.

The above remarks are not meant to imply that there is no place for the more general inventories. They are of value for certain general purposes, such as a basis for conferences on personal problems, and for research purposes.

The main contribution of this study is the emphasis on the point that progress in understanding why one person likes another will largely depend upon the development of more adequate techniques for measuring the particular factors involved in inter-personal attractions. Psychologists cannot expect to make much headway with a science of friendship formation by the use of measuring rods which have not been specifically devised for the problem at hand.

#### SUMMARY OF FINDINGS AND CONCLUSIONS

The main findings and conclusions drawn from the data of this study may be summarized as follows:

1. A small degree of relationship between academic achievement and

mutual friendships was found, but the weight of the evidence indicates that degree of academic proficiency plays a very indiscriminating role in determining mutual friendships. This seems especially true when consideration is given to the fact that a large amount of school achievement is due to the intelligence factor.

2. A shade of evidence was found which indicated that general intelligence is a little more related to mutual friendship formation than is academic achievement. This was interpreted as being due to the fact that the intelligence tests measure a more general factor than is measured by achievement in school subjects.

3. The measurement of interests in the sixth grade by the scale used showed a small degree of relationship with the mutual friendships, but the significance of this finding was largely negated by the fact that the non-mutual control groups showed practically the same degree of association.

On the whole, not much correlation was found on the high school and college levels between results with the Kuder Preference Record and the mutual friendships. However, a substantial correlation was obtained on the high school level with Clerical interest, and on the college level with Social Service and Scientific interests. The point was made that the two latter interests may involve more comprehensive attitudes than the other interest areas measured.

4. A small but rather certain relationship was identified between a measure of socio-economic home background and friendship formation on the fifth grade level.

5. Results with the California Test of Personality in the elementary grades, and on the college level, showed very little association with the process of friendship formation.

Results with the Bell Adjustment Inventory on the high school level showed no relationship between the mutual friendships and Home and Health adjustments, but substantial correlations with both Social and Emotional adjustments.

Correlations of .74 and of .52 were found on the high school and college levels respectively between mutual friendships and an unstandardized scale prepared by the writer and designated "A Scale for Measuring Capacity to Win Friends." This finding was interpreted as indicating the need for developing a scale, or some other kind of technique, designed specifically to measure factors known to be involved in inter-personal attractions. Not until this is done can psychologists hope to come much closer to answering the question as to why one person likes another one.

The development of this kind of a measuring instrument is likely to be most successful if a rather large selection of comprehensive traits and abilities (including character traits) are sampled, and if, as stated above, these traits and abilities are drawn from the results of research studies dealing with factors related to inter-personal attraction.

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## A SOCIOMETRIC STUDY OF CHILDREN'S FRIENDSHIPS

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### INTRODUCTION

Friendship represents a pattern of interaction which may exist between any two people. It has been recognized and extolled by philosophers, poets, authors, and ordinary people for many centuries. That it is a pleasant and satisfying relationship is readily recognized by anybody who has ever had a friend or who knows two people who are friends. That it is important to adequate personality development is recognized by clinical psychologists, mental hygienists, and educators. In former centuries a child was discouraged from having contemporaries about him, lest it distract him from carrying out the so-called necessities of life and education, and lest they lead him outside the prescribed moral code of the culture. We are coming now to an awareness of the importance of this relationship as a training ground for acquiring techniques of personal interaction in many phases of the individual's life and as a prelude to marriage, and also for its influence on the development of a satisfactory personality. From the mental health point of view, it would seem to be essential for every child and adult to have or be able to have some close personal relationships with a contemporary.

Yet there are a good many adults to-day who have never had and do not have any friends. For some, who have withdrawn to a world alone without concern for their fellow beings, this may be satisfactory—as long as no one bothers them about it (e.g. hermits, mild schizophrenics). These however we consider abnormal in our culture, and such individuals contribute little to the well-being of mankind. They have become self- rather than socially-centered.

It is important then to know the nature of friendship, how it arises, its functions, meanings, and values. In friendship we have a special form of social interaction which influences and is influenced by the social and emotional development of the individuals concerned. Consequently a better understanding of the relationship is essential to our knowledge of psychological development of the individual.

In the present study we have studied three aspects of friendship—(1) objective characteristics related to friendship, (2) the social sphere within which friendship functions, and (3) the relationship in action within a controlled setting.



# GENERAL PROCEDURE

## 1. Previous Studies

Psychological research has given some attention to the subject of friendship. (2) But the stress has been largely on discovering and analysing the objective factors associated with friendship (that is, the degree of similarity between friends in such characteristics as physique, intelligence, personality, and the socio-economic factors limiting the formation of a friendship). This approach while producing few positive results, reduces the relationship to a mechanistic patterning and tells us virtually nothing about its dynamics. It may indicate roughly that two people of a particular background may become friends, but it does not tell why two others similarly limited *do not* become friends. It may suggest the limitations within which the relationship is possible, but it says nothing of the nature of the relationship as it functions, its meaning and value to the people who are friends.

## 2. Setting

The study on which the present paper is based was conducted at a small elementary school in a suburban, residential section near Toronto.\* *mention background*  
Residents of this area are generally of superior economic, educational, and occupational status, interested in the most modern educational developments. The school itself is new, having been built in 1940. In architecture and equipment, it uses all the more recent devices.

In the school there is only one class for each grade from Kindergarten to Grade 7. Thus, it is possible for a child to be with approximately the same group throughout his grade-school career. This possibility is heightened by the low motility in the area; because most of the homes are new and owner-occupied, changes in the population are mainly the arrival of newcomers who remain in the district for some time. However since the school has been open for only such a short time, none of the children have completed this cycle yet, but most of the children in the present study have been in the group for two years or more.

Research on social development has been conducted at the school since 1940, under the auspices of the Canadian Committee on Mental Hygiene, as part of the project on research in Dementia Praecox, financed by the

\*The Author is indebted to the staff and children at Forest Hill village, West Preparatory School, without whose co-operation and assistance the present study would not have been possible.

Scottish Rite Masons 33°. This has helped to create in the staff an interest in this phase of child life. This is heightened also by the fact that because of the small number of students and the low motility the teachers are able to know the children well and can thus be helpful in research.

### 3. Procedure

In the course of the previous research mentioned above, sociometric charts and target diagrams were constructed for a number of classes. Among the variety of relationships thus observed, the mutual first choice occurred with considerable frequency. It was this relationship which we selected as our definition of friendship and made the subject of this particular investigation.

The study was conducted at the school during the fall of 1943 and the early months of 1944. Three classes were used—grades 5, 6, 7. These classes were selected since they were more homogeneous especially in age and since the method to be followed was not readily applicable to the lower grades. At the beginning of the study children in these grades ranged in age from 9-0 to 14-10 with a mental age range of 9-6 to 18-5 (Dominion Junior and Intermediate Group Tests). This suggestion of superior intellectual level may be partly due to the test used, though the background and general impression would verify this above-average tendency. In these three classes combined there was a total of 124 children.

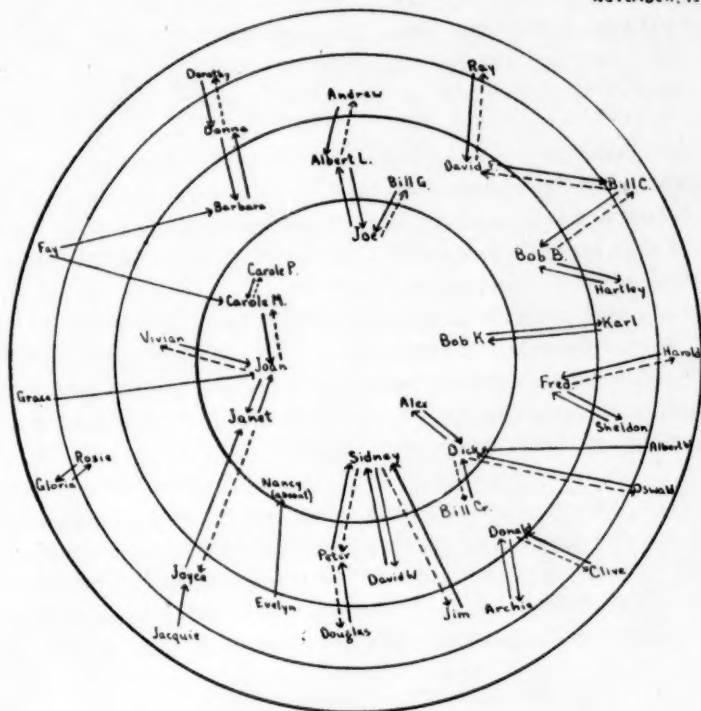
### 4. Selection of Friends

A survey of previous literature would indicate that a wide variety of methods for the selection of friends have been used in other studies, ranging from observational techniques to verbal selections. The relative merits of these approaches have been discussed by Frankel and Potashin (2) who suggest the superiority of the sociometric techniques for this purpose. In the present study the latter method was followed.

One month after the school opened in the fall of 1943, Northway's adaptation of the sociometric test for grade school children was administered in each of the grades described. Choices were given weighted scores as outlined by Northway (11) and first choices plotted on a target diagram. (Fig. 1). An unbroken arrow was drawn from the name of each child to that of the child to whom he gave his highest choice. If this choice was reciprocated with less than a first choice a broken arrow was drawn in the reverse direction. If the choice was totally unreciprocated, no return arrow was drawn. In this way two groups of partners were selected: a) mutual

Figure 1.  
TARGET  
of  
FIRST CHOICES and RECIPROCATIONS

GRADE: 6  
NOVEMBER, 1944.



1st Choices ———→  
Other Choices - - - - -→

MUTUAL 1st CHOICES (Friends)

Barbara - Donna	Bob B. - Hartley
Gloria - Rosie	Bob K. - Karl
Janet - Joan	David W. - Sidney
Albert - Joe	Fred - Sheldon
Alex - Dick	Archie - Donald

UNRECIPROCATED 1st CHOICES (Non-Friends)

Barbara - Fay
Carole M. - Fay
Joyce - Jacquie
Grace - Joan
Albert M. - Dick

first choices—21 pairs henceforth to be referred to as friends; and b) unreciprocated first choices—29 pairs henceforth to be referred to as non-friends.

For our group of non-friends we might have made our partnerships on the basis of partial reciprocations or mutual unreciprocations. Either of these would frequently necessitate the use of the same child in many pairs and also obscure the relationship in which we are interested. Such selections would group together a variety of attitudes ranging from lack of acquaintance and indifference through varying degrees of interest in each other to actual antagonism. In our group of unreciprocated first choices, we know at least that one of the partners is definitely interested in the other.

To check our selections, teachers were asked to name each child's "best friend". In the two classrooms where the teachers co-operated 13 of the 17 pairs (76%) of friends whom we had selected were verified by the teachers. Of the remaining pairs, 3 had been left blank because the teacher was uncertain of who their friends were.

Thus this study is a comparison of 21 reciprocated choices (friends) with 29 unreciprocated non-friends.

In the present research we have attempted to study the nature of friendship, its social background, and its expression in mutual action. More specifically, we have studied three things:—

A.—The objective factors associated with friendship. Previous work has given this emphasis, but in a small homogeneous group, such as the classroom, the significance of these features is revealed more clearly.

B.—Friendship is a pattern within general social interrelations.

C.—The differences in interactivity of friends engaged in a common project and non-friends engaged in the same project.

#### A. ANALYSIS OF OBJECTIVE CHARACTERISTICS

##### 1. *Procedures*

In considering these characteristics we were interested to see whether the factors which others have indicated as instrumental in the formation of friendships within larger groups such as a whole school, city, camp, function in the same way in a smaller primary group such as the classroom. That is, for example, if as suggested by Furfey (3) Seagoe (15), and others, children choose friends who live relatively nearby, or are in the same classroom, would they also choose the children who, within a limited neighbourhood as represented by the classroom, are closest to them?

To study this, the degree of similarity between friends and between non-friends, was compared. Most of the data used were taken from the school records (height, weight, chronological age, residence, and parent's occupations which were rated by us on Beckman's 10-point scale as given in Bingham (1).) For measures of intelligence the Dominion Junior and Intermediate Group Tests were administered by the experimenter in each of the classes about two months after the study began. In judging academic performance, a paired comparison technique was used. Teachers indicated which child in each pair did better work at school and the degree of difference between the partners in this respect.

In analyzing the data thus obtained, the following procedures were used.

a) Height, weight, chronological age, mental age, intelligence quotient, parents' occupational ratings:—For each of these measures the mean difference between friends and between non-friends was obtained. The reliability of the discrepancy between these mean differences was then calculated by use of Garrett's formula for the reliability of the difference between two means. (4)

b) Academic achievement:—The difference between partners was indicated by the teachers as A. N. D. (almost no difference), L. (little), C. (considerable), G. (great), V. G. (very great). The percent of friends and of non-friends in each of these categories was calculated and compared.

c) Residence:—Partner's homes were plotted on a map of the school district. Using the school as the centre or focus, the area was divided into four sections such that it would be possible for children within each of these areas to travel to and from school together. The percent of friends and of non-friends for whom this was feasible was then calculated.

## 2. Results

Table I shows little difference between friends and between non-friends in Chronological Age, Mental Age, Intelligence Quotient, and academic status, but friends tend to be somewhat more alike in physical characteristics than non-friends. Even here however, the difference is so small and the reliability so low that its significance is minimized. The sociological factors (residence, parents' occupational status) seem to be more important though again the difference is not great. Friends tend to live closer to each other and their parents represent more similar occupational levels than non-friends.



TABLE I  
COMPARISON OF FRIENDS AND NON-FRIENDS IN OBJECTIVE CHARACTERISTICS

Item	Friends	Non-Friends	Difference	Rel. of Diff.
Mean difference between partners in height	2.3 ins.	3.1 ins.	.8	1.33
Mean difference between partners in weight	10.9 lbs.	17.31 lbs.	6.4	1.9
Mean difference between partners in Chronological Age	6.7 mos.	7.0 mos.	.3	.2
Mean difference between partners in Mental Age	16.9 mos.	15.7 mos.	1.2	.32
Mean difference between partners in Intelligence Quotient	14.7	14.5	.2	.06
Mean difference between occupational ratings of parents of partners	2.2	3.7	1.5	2.4
<i>Residence</i>				
% partners able to go home together	61.9%	51.7%		
<i>Academic Performance</i>				
% partners A. N. D.	57.1%	44.8%		
% partners L.	9.5%	31.0%		
% partners C.	19.0%	13.8%		
% partners G.	14.3%	10.3%		
% partners V. G.	0	0		

Though their statistical reliability is not too great, these "objective" factors, especially the socio-environmental characteristics, may act as limiting but not definitive factors for friendship. That is proximity and likeness may be factors increasing the probability of a choice being made, even within a limited primary group, but they do not indicate why any particular choice is made rather than any other, within these same limits.

#### B. ANALYSIS OF SOCIAL RELATIONSHIPS

##### 1. *Comparison of friends and non-friends*

Friendship or the lack of it does not occur in vacuo as an isolated pattern, but is part of the general social structure within the whole group. It seemed probable that the relationships of friends as a unit and as individuals might differ from those of non-friends. Consequently some of the sociometric data obtained by the test were more thoroughly investigated.

##### a) General Social Acceptance

###### —Procedures

In this analysis, when considering the partners as individuals, the group of non-friends was divided into two sections. The child in each pair who



had been chosen first by his partner was placed in section C. In section U were included all the children whose first choice had been unreciprocated by their partners. In each section no child was included more than once even though he might have been a member of more than one pair.

The mean social acceptance rank for the friends was compared with the mean rank for each of sections C and U, by use of Garrett's formula for the reliability of the difference between two means. To compare the degree of similarity between friends and between non-friends in this measure, the same procedure as described for comparing height, I. Q., etc. was followed.

#### —Results

Our analysis (see Table II) indicates that friends are more similar in their social status in the classroom than non-friends (mean rank difference on social acceptance scores of 8.9 between friends and 23.4 between non-friends), and the chosen partners in group of non-friends are often the "stars" or most highly accepted members of the class (mean rank of 8.8 as compared with the mean rank of 15 for the group of friends). This, coupled with the very low status of the unreciprocated members of the group of non-friends (mean rank of 31.3) corroborates Northway's finding that children who are low in acceptance seem to make 'unreal' choices by aiming at people far beyond their reach, whereas children higher in the scale are more probably making choices on the basis of their experience: (12) consequently they are truer indices of their real preferences. Children who are low in acceptance choose people who stand out in the group but with whom they may actually have very little contact. They are making choices which for them are improbable but designate them as desired companions because they are so prominent in the group. This may give them an excuse, a rationalization, for their lack of success in social situations, just as the adult who is unsuccessful may turn his attention to a member of some unattainable group.

#### b) Clusters

#### —Procedures

The general acceptance level of subjects is not the only factor which can be ascertained by sociometric testing. Other workers have indicated a variety of groupings within the whole group. To show more clearly the "clusters" which may occur about individuals or pairs, we constructed diagrams indicating choices made and received by partners individually and

TABLE II  
ANALYSIS OF SOCIAL RELATIONSHIPS OF FRIENDS AND NON-FRIENDS

Item	Non-Friends			Reliability of Diff.
	Friends	Unchosen	Chosen Difference	
Social Acceptance Ranks				
Mean	15	31.3	16.3	7.1
	15	8.8	6.2	2.7
Mean Difference between partners	8.9	23.4	14.5	6.1
Number of Choices Made				
Mean	5.5	6.1	.6	1.44
	5.5	5.3	.2	.36
Mean Difference between partners	1.4	1.8	.4	1.11
Number of Choices Received				
Mean	6.7	2.5	4.2	5.5
	6.7	9.0	2.3	1.8
Mean Difference between partners	3.6	8.2	4.6	4.03
Strength of first choices	15.9	13.0	2.9	2.87
Common Choices				
% given	43.96%	38.96%		
% received	40.3%	28%		
% which are 1st, 2nd, or 3rd choices	53%	74.6%		
% of 1st, 2nd, and 3rd choices of chosen partner also made by partner	43.1%	57.6%		
% of choices given which are reciprocated	54.1%	15.4% 60.2%		
		36.2%		

in common. Differences in patterns are readily seen by such pictorial methods, but a statistical analysis from them was also made (Table II). Examples of these patterns are shown in figures 2 and 3.

The same technique as described above for social acceptance ranks was applied in analysing what Moreno (9) has called emotional expansiveness, as indicated by the number of outgoing choices, and the number of choices received. The percent of choices made in common, the percent received in common, and the percent of choices reciprocated were also obtained. (8) We were interested also in the kind of choices which are made in common; that is, whether these are the more important choices, such as first choices, or the less important small choices. In addition the strength of the first choices as indicated by how high a score the child gives that choice was also compared for the group of friends and section U of the group of non-friends.

Figure 2.  
'SOCIAL CLUSTER' SURROUNDING FRIENDS

CASE: G  
SECTION: X

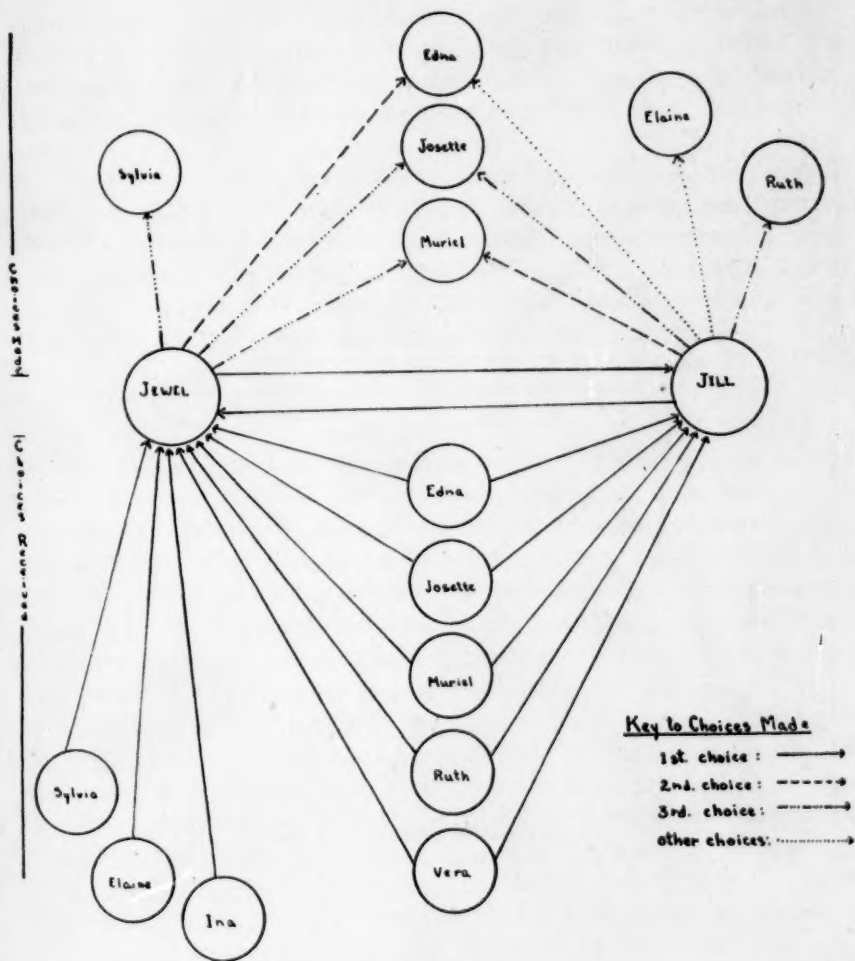
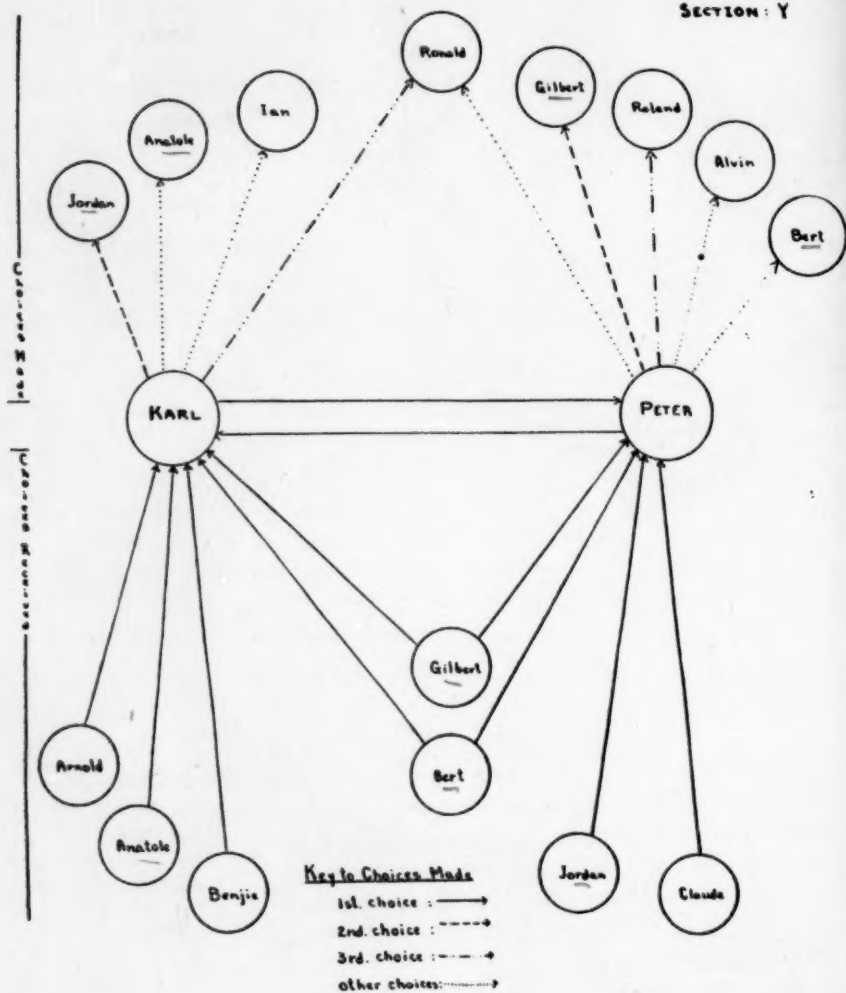


Figure 3.  
'SOCIAL CLUSTER' SURROUNDING FRIENDS

CASE: E

SECTION: Y



—Results

Although 'emotional expansiveness' is insignificant in differentiating between our friends and the choosers and chosen in the group of non-friends, there is some tendency for the unreciprocated members (U) of the latter group to make more and possibly shallower choices. This is related to the finding that these children choose their partner's first, second and third choices more often than friends do, and also that they make weaker first choices than friends give to each other. Apparently they are interested in entering the 'cluster' to which the partner belongs. Consequently they concentrate a little less strongly on the partner and direct more choices to his associates.

As well as being higher in rank, the chosen partners in the group of non-friends (C) receive choices from more people than either their partners or friends. Though this trend is similar to that observed concerning social acceptance ranks, it is not necessarily a correlate of this trend, since a child receiving shallow choices from many others may have a lower total score than a child who receives strong choices from a few classmates.

2. *Patterns of Social Relationships Surrounding Friends*

a) Procedure

Quick examination of the diagrams of "social clusters" surrounding friends indicated that they did not all conform to the same pattern. To discover that the sub-patterns the 21 diagrams, each made as illustrated in figures 2 and 3, were given to two judges who, independently, divided them into two groups, by putting together the diagrams, which, on the basis of casual observation, seemed most like each other. The judges' placements were identical for all but two cards. By later consultation with each other they were able to place these in their most suitable location.

More detailed examination of the division by the writer indicated that the same groupings would have been obtained if the differentiation had been made on the basis of the percent of choices made by partners in common. Thus we had found two patterns of social relationships within which friendships had occurred:—10 cases in section X, in which partners had made more than 50% of their choices in common, and 11 cases in section Y in which partners had made less than 50% of their choices in common.

The same comparisons which had been made between friends and non-friends were made between the two sections of friends in the following factors:—residence, M. A., academic status, parent's occupational status, acceptance ranks, emotional expansiveness, choices received, % reciprocations,

strength of first choices, and data from the experimental study, (to be discussed later). In addition the percent of subjects in X and in Y in each quartile of acceptance was obtained.

#### b) Results

Friends in section X (more similar choices) tend to be slightly more similar in the objective characteristics than friends in section Y (less similar choices), though the latter resemble each other more closely in intelligence. However all these differences are slight and do not indicate any strong basis for differentiating between the two patterns surrounding friendship.

Differences are more clearly defined in terms of general social relationships. Friends in X are high in social acceptance while friends in Y are more often in the middle quartiles of acceptance. In addition children in the latter group make more choices on the test and are more similar in this respect than children in the former group. However, once again these differences are small and their significance must not be overrated.

Partners in X have more similar social relations both in terms of choices made and choices received. There is thus a greater tendency for them to be regarded as friends by the group as a whole. Their relations are also more successful since 57.95% of their choices are reciprocated while in Y the percent of reciprocations is only 32.25. The importance of this difference is modified by the fact that in the latter group more choices are made.

The foregoing results lead us to assume that the friendship relationship may be found within different general patterns of social relationships, of which we have shown two. Consequently it may serve various functions dependent on the particular pattern within which it occurs.

The two patterns we have found suggest the 'clique' type of closed relationship (X) as contrasted with the wider interests of friends, each of whom has contacts and relations in a sphere in which the other does not enter (Y). Since the latter are less highly accepted, they are not so often the 'stars' or idols of the class: since they maintain differing relationships they are less dependent on each other and may have more to contribute to the friendship than the pairs who stay closely within the same group. Group X are more like the chosen partners in the group of non-friends.

These clues concerning the patterns indicate the direction for further research. The various complexities of social relations which exist among children beneath the appraisal of social acceptance and reciprocated friendships or non-reciprocations, should be studied in terms of their relationship to personality characteristics.



# C. EXPERIMENTAL STUDY

## 1. *Previous Studies*

As we have already stated, it is the nature and dynamics of the functioning relationship in friendship which is important rather than the limiting factors for the existence of the friendship. It is possible for every person to have a friend but what is there in the relationship between them which characterizes them as friends rather than casual acquaintances, teacher-pupil, employer-employee? What kind of interaction must a person be capable of conducting with someone else in order that they are friends? In other words we want to know what friendship is, its meaning, values, and influence on the individuals who are friends.

We attempted to approach this problem by investigating in some way the interaction between children who are friends and children who are not friends. Ideally, one would observe these partners in their ordinary relations with each other. However, from a practical standpoint this is very difficult with children beyond the nursery school level. It was necessary then to create an observational situation which would isolate the relationship from the social structure and the restraining influence of the class. It would be interesting to study the influence of these factors on the interaction of the partners but in the present study we were interested in the basic relationship itself which might be obscured by the extraneous influences. Furthermore, by understanding the basic relationship itself we have a standard on which to compare it as it is influenced by other factors.

Experimental settings have been used by other workers in studying the relationships between two children. Both Hagman (7) and Gregory (5) devised play settings in which to observe the children together, and Murphy (10) has made use of a similar approach in investigating sympathy in young children. These studies have been limited to children of pre-school age and the methods employed are not directly applicable to the grade-school children in whom we are interested. At this age level it is difficult to find play material which would appeal to children within the wider age range of 9 to 15 and to boys and girls alike. In addition, because of the longer attention span, an interesting program would require more time than possible within the limits within which the experiment was to be conducted.

Clinical work has indicated the value of language and conversation as a means of expression which conveys to the observer, not only factual information but also clues to underlying factors such as attitudes, conflicts (e.g. Carl Rogers (14)). The conversational element has also played an increasingly

important part in psychological investigations in industry (e.g. employer-employee conferences) see Roethlisberger and Dixon (13), Hader and Lindeman (6). We believed, therefore, that it might also give clues to the nature of friendship among pre-adolescent and adolescent boys and girls, and replace observation of *overtaxation* in an experimental play setting.

## 2. Procedures

To observe the children in the course of a completely free, undirected discussion would be the most favourable approach. However, in order to make the comparison of different pairs of children more practical, some degree of *control of direction* must be introduced so that the situation may be as uniform as possible for all subjects. Therefore, the interaction developed through interested discussion of a common project was used as the basis for ascertaining the relationships of friends and non-friends.

Each pair of subjects (both friends and non-friends) was observed while planning a class picnic. The children were told that we wanted to find out how students at different grades in school could organize such an outing. Certain features of the discussion were explained before it actually began, such as the necessity for recording the conversation, and the necessity for secrecy. To encourage a free discussion, it was stressed that the children were to say whatever they liked without waiting for specific direction or instruction from the experimenter.

The experimenter's only function in the remainder of the discussion was to introduce topics for the partners to consider. She was careful in asking these leading questions, not to indicate by word, glance, or gesture that either of the children was to answer. Except under the following circumstance she took no further part in the discussion of any topic. If after a few seconds, the second child made no comment about *the initial response to the examiner's question*, she would ask him to express some opinion. The conversation was then permitted to continue at its own rate until the comments indicated that a decision had been reached, or until a fairly long pause occurred which would suggest that the topic had been exhausted or that the children did not intend to continue it without direction. The experimenter would then introduce a new topic. Eight topics, such as where the picnic would be held, transportation, were discussed in this way, at the beginning as well as a final question about who would be the most suitable person in the class to organize and arrange the trip.

In a setting such as this it is possible that one child would give the first answer to every question and the discussion might cease after his part-

ner's spontaneous or prompted comments. This would prevent us from gaining much knowledge of the first child's reaction to his partner and his ideas. Consequently, six more controlled discussions were introduced in each of which the experimenter indicated which child was to begin the discussion of the topic. Otherwise the discussion continued as in the rest of the experiment. The examiner alternated between partners in asking these questions. Such topics as food, games, were discussed in this part.

In our experimental study, 62 different children grouped into 31 pairs were thus observed:—21 pairs of friends and 10 pairs of non-friends. It was necessary to exclude 19 pairs of non-friends from the discussion because children in these pairs were included in more than one relationship. Had these partners been included in the study certain children would have to participate in the project more than once.

The experiment began 10 days after the sociometric test had been given and continued over a period of three weeks. Children were seen in pairs and an almost verbatim report of their conversation was recorded by the experimenter on a form prepared in advance. By use of symbols the examiner also noted the nature of all the remarks, their sequence, and spontaneity. An outline of the conversation may be seen in figure 4.

As the children left the room the examiner recorded the approximate time they had been there and any remarks about the individual children, their attitudes to each other and the general atmosphere of the discussion.

### 3. *Analysis of Data*

#### a) Graphic and Quantitative Analysis

##### —Procedures

To condense the original record form for statistical treatment and to show more clearly the course and direction of the discussion a graphic form was adapted from the analysis of industrial conferences by Hader and Lindeman. (—6— p. 5) Lines were drawn to show the flow of conversation from examiner to the children and from one child to the other. To differentiate between initial responses, free undirected conversation, and prompted comments different colours were used. This graphic portrayal simplified the statistical analysis (see figure 5).

The following analysis was made for the whole interview and for part 1 of the interview. In each the same procedure was followed.

a) The amount of free discussion between partners was compared for friends and non-friends by use of Garrett's formula for the reliability of the difference between two means.

Figure 4.  
F-I RECORD FORM

GROUP A. FRIENDS # F.					
QUESTION	S 1 2	Ronald	S 1 2	Jordan	REMARKS
Naming	1	Jim Bow & his Jordan.			
Where	(1) SC <sub>1</sub>	Amour Heights What's the name of that place out past the bridge?	?	That's good unless you want to go further. SC <sub>1</sub> (answers SC <sub>1</sub> ) - King's Hollow. That's a good place too.	Ronald tells me "stadium" appearance Jordan London Both very polite
Meeting place	(2) SC <sub>1</sub>	At school It's best to come to school first - then we'll all be together.	SC <sub>1</sub>	Yes, at school, unless kids don't close to the place. They can meet elsewhere.	
Transportation	(3) SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	Describe route Best to take bus to Amour Heights (answers SC <sub>1</sub> ) Yes. How would we get to King's Hollow?	SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	Take a bus or walk where's that? Oh, now I know, let's wait there once then he can take go swimming SC <sub>1</sub> (answers SC <sub>3</sub> ) Answers SC <sub>3</sub> .	
Time	(4) SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	Yes, let's take an afternoon off. Describe what happened at another picnic. Laughs & says John was a gooner.	SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	Can we go on a school day? Yes, leave about 1 o'clock Laughs, & tells jokes.	Humorous & responsive
Length	(5) SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	What O.K. Yes, about 4 hours Yes, we have fun as shown.	SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	4-5 hours That's all you could get in. Like our skiing parties.	Ask & answer each other's questions: one. Considerable discussion
Return	(6) SC <sub>1</sub>	Same way as we came	SC <sub>1</sub>	That's right.	
Food Preparation	(7) SC <sub>1</sub> SC <sub>2</sub>	Every body bring his own That's what we always do at Scouts	SC <sub>1</sub>	Yes, that's best.	
Kind of Food	(8) SC <sub>1</sub>	No tomatoes, they spoil	SC <sub>1</sub> SC <sub>2</sub>	Sandwiches Oranges. We always have them in case we get thirsty.	Plates out.
Serving	(9) SC <sub>1</sub>	Just put every thing on plate & pass. Don't waste things that way	SC <sub>1</sub>	Pass out pass share on circle	
Setting	(10) SC <sub>1</sub>	Clear place, no dirt. Set out blanket A cheap & good idea. You can see everything from there.	SC <sub>1</sub>	As good an idea as any - On a cliff	
Activity	(11) SC <sub>1</sub>	Bring a portable radio.	SC <sub>1</sub>	Same	
Games	(12) SC <sub>1</sub>	Baseball, foot ball, hide & seek. Oyster shells.	SC <sub>1</sub>	Relaxation	
Clean up	(13) SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	How would you do that? That's good They have a towel at King's Hollow	SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	Everybody help every body. Put out fire throw sand on it. Be the best every thing in hand	
Wind-up	(14) SC <sub>1</sub> SC <sub>2</sub>	Thank you. Sing songs Musical games. Some people could entertain	SC <sub>1</sub> SC <sub>2</sub>	Not much else to do. Portable game phone	
Organizer	(15) SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	Teacher That's good. Thank you too. No, he's not good. Sharon & Bob	SC <sub>1</sub> SC <sub>2</sub> SC <sub>3</sub>	Sharon David - no! Uh-huh.	Time: 18 min

Key:  
1 - Initial Response  
2 - Prompted Response  
SC<sub>1</sub>, SC<sub>2</sub>, ... - Spontaneous Remarks (in order)  
/ - Response directed by Interviewer

Figure 5.

GRAPHIC ANALYSIS OF INTERVIEW  
(Part 1)

GROUP: Non-Friends  
# 10.

Question	Symbol	Answer	Examiner	Answer	Symbol
Naming	J				?
1.	SC <sub>1</sub>				J SC <sub>2</sub>
2.	SC <sub>1</sub>				J
3.	SC <sub>1</sub>				J
4.	SC <sub>1</sub>				J
5.	?				J
6.	SC <sub>1</sub>				J
7.	?				J
8.					

Key

- J - Initial response to topic .....  
 SC<sub>1,2</sub> - Spontaneous Comments, etc. ———  
 ? - Answers prompted by examiner - - - - -



b) The mean difference between friends and between non-friends in 1) amount of free discussion, 2) number of times each initiates the discussion, 3) number of times each requires prompting from the experimenter, were similarly compared.

c) Length of interview was compared for friends and for non-friends.

—Results

TABLE III  
QUANTITATIVE ANALYSIS OF INTERVIEW DATA

Item	Friends	Non-Friends	Diff.	Rel. of Diff.
Length of Interview (Mean)	15.2 min.	10.9min.	4.3	4.6
Amount of Uninterrupted Discussion (No. of — lines on graph)				
a) Total Interview	19.4	12.8	6.6	1.7
b) Part I	11.2	8.0	3.2	1.4
Difference between partners in amt. of discussion. (Mean)				
a) Total interview	3.2	3.6	.4	.4
b) Part I	2.2	2.6	.4	.2
Difference between partners in no. of initial responses (V) (Mean)	2.9	3.9	1.0	1.0
Difference between partners in no. of responses prompted by examiner. (Mean)	2.5	1.9	.6	.97

During the interviews which we had conducted, friends generally stayed longer (15.92 mins.) than non-friends (10.9 mins.). They also carried on more spontaneous conversation without direction and required less adult prompting than non-friends (See Table III). The latter answered questions but made little additional comment and there was little continuity in the conversation between them. These tendencies were observed in the interview as a whole as well as in Part I. In general the statistical differences between friends and non-friends in the interview situation as shown in Table III are relatively high. The reliability of these differences is however not very strong but with more cases these indices might have risen.

There is some tendency for one partner in each pair to assume the initiative more often and to speak more than the other. This suggests a dominant-submissive relationship, but since it occurs to almost the same degree between friends and between non-friends, it cannot be considered as a significant feature or characteristic of the friendship relationship.

In Part II of the interview, where there is increased direction of the conversation by the adult, the free flow of conversation between partners

in both groups seems to be inhibited. Though this adds little to our knowledge of friendship, it suggests a characteristic which influences any interview methods used with children. If the adult talks too much to the child, the results obtained will be less valuable than those obtained when the child is permitted to do as much talking as possible and the adult listens. (14)

# b) Qualitative Analysis

Characteristics observed by the examiner of the partners as pairs and as individuals, and of the discussion, were summarized for each group. Sixteen features were noticed and the number of times each occurred in each group was checked and later translated into percents (See Table IV).

TABLE IV  
QUALITATIVE FEATURES NOTED IN IMMEDIATE RECORDS OF INTERVIEWS

	Friends	Non-Friends
1. Careful thought	1 (5%)	0
2. Exchange glances	8 (38%)	0
3. One partner watches other	0	3 (30%)
4. Humour and response	9 (43%)	1 (10%)
5. Humour—no response	0	2 (20%)
6. Discussion without reference to examiner	5 (23.8%)	1 (10%)
7. Ask and answer each other questions	4 (19%)	0
8. Comments without reference to partners remarks	0	3 (30%)
9. Teasing	4 (19%)	0
10. Physical contact (e.g. hold hands)	2 (9.5%)	0
11. One partner bored	1 (5%)	4 (40%)
12. Indifference to each other	0	1 (10%)
13. Poking, etc., embarrassing partner	1 (5%)	4 (40%)
14. Serious	1 (5%)	1 (10%)
15. Cheerful and pleasant	12 (57.1%)	1 (10%)
16. Dull	3 (14.3%)	4 (40%)

Though the qualitative features summarized in Table IV do not have high statistical significance, their significance to a fuller understanding of the nature and dynamics of the friendship relationship is marked. They indicate the direction in which we must turn in order to learn what friendship is like and how we can help children who have no friends to achieve some close personal relationship with another contemporary. We are given a clue to the essential differences in the relationship between children who are friends and children who are non-friends. In the former we find a free, unrestricted atmosphere as compared with the more tense, less interested attitudes and dependence of non-friends. This difference is suggested by such factors as the exchange of humour, good-natured teasing, interchange of glances and other silent communication between friends. With the non-friends, attempts at humour are often unsuccessful, and the choosing partner is awed by his

idol so that it is difficult for him to carry on the lighter, freer tone characteristic of friends. Some spend much of the time in the interview just watching his partner for cues silently agreeing with all his plans. Others make special effort to impress his choice by talking a great deal, showing off, and expressing enthusiastic agreement and approval of his partner and his ideas. Either of these patterns of behaviour is frequently annoying to the partner.

#### SUMMARY AND DISCUSSION

In the present study, our aim has been to clarify the relationship of friendship. For purposes of this research we have defined friends as a pair of children in which each gives to the other his highest choice on a sociometric test in the classroom. Those pairs of children in which one gives the other his highest choice but the latter does not reciprocate with any choice have been called non-friends.

Our investigation has been concerned with three aspects of the problem:—the objective factors, the social milieu within which the relationships function, and the interaction of partners in the relationship. In our observations of each of these aspects, we have followed three separate approaches to the problem.

1. From the traditional approach in terms of the "objective" factors related to friendship, such as similarity of age, intelligence, socio-economic background, we achieve only a vague guess that the sociological factors are a little more important than the physical factors in determining friendships, and that friends tend to resemble each other a little, though not much. The importance of these factors shown by others in larger groups such as the whole school or community, is not increased by confining our study to friendships within a classroom of limited cultural, economic and social range.—They still function as limiting but not definitive factors for friendship.

2. From the sociometric analysis of the group structure within which friendship occurs and the general and social development of the individuals concerned we are given some indication of the value of the relationship and its role in personality development. We have shown that a child who has a close personal relationship with another child, is generally well accepted by his classmates, but the child without a 'friend', though he may not be rejected, is not generally sought out as a companion by his classmates. His social aims and relationships are unsatisfactory and he aims to remedy this by making 'unreal' choices, by indicating as preferences classmates who for him are impossible. Instead of choosing from within his own experience, he chooses the 'stars' or idols of the class, with whom he may have had very little if any

contact. He is thus protected from rebuff and can rationalize about them as one might about a movie celebrity.

The sociometric analysis contributes additional information about friendship since it has revealed the existence of the relationship within two different social constellations. We have shown two forms in which friendship may function and would expect that the meanings and values of friendship may vary according to the structure in which it appears. We have shown two patterns (and there may be more):—the closed 'clique' structure and the wider spreading variety with expanding contacts. The question of which is the healthier form would have to be studied in terms of the personalities of the children concerned. From our data the first group represent the upper strata of acceptance, the 'stars' and idols of the class. The second represent the well accepted though not overly prominent children. Whether it is favorable from the mental hygiene point of view to be at the upper extreme of the scale of acceptance is a question which has yet to be answered and our judgments about the values of the different friendships we have found will be related to this more general problem.

3. Both of the above methods attack the problem of friendship from the outside and can thus not give an adequate picture of the nature of the relationship. The sociometric approach may give us important information about the function of the relationship within the total environment, but it cannot show its structure from within, its dynamics, and the qualities of interaction which it requires. The value of such knowledge to guidance is obvious.

Because it is a dynamic relationship, any attempt to study it from within must permit it to function in this way and not reduce it to mechanistic rigidity by statistical procedure. We must stress the qualitative rather than the quantitative aspect of the problem, and we must study it in action under conditions which are as close as possible to the normal.

We have demonstrated by use of an experimental discussion technique a method of approaching this aim. Our method is still crude but it indicates what may be obtained through such an approach to the relationship. We have obtained through it a feeling of what friendship is like, an indication of the general atmosphere it involves and a little of the relationship between this interaction and the personality make-up of the individual. Friends stay longer, talk more freely and require less adult prompting and direction than non-friends. There is a freer, lighter tone to the whole discussion and a more relaxed, unrestrained atmosphere. The poorly accepted children in the group of non-friends carry a degree of tension to the situation, often

seemed awed by it and by the chosen partner and acquiesce to the latter or try to impress him by showing off, or agreeing forcefully with whatever he may suggest.

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## MEMBERS OF A RURAL COMMUNITY AS JUDGES OF PRESTIGE RANK

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In a former paper<sup>1</sup> the prestige rank accorded to the members of a New York rural community by 14 judges, who were also members of the community, was described. Major emphasis was given in this discussion to a consideration of the statuses which appeared to be important in determining prestige rank.<sup>2</sup> Attention was focused on the prestige rank given 418 community members who were family heads and who had been ranked by four or more judges. In this paper, on the other hand, the prestige judges themselves are analyzed. The ratings of a judge are seen in relation to his social position in the community. The paper is concluded by an evaluation of the prestige rating procedure as a method of community analysis.

The question may well be asked as to what types of persons are the most competent judges. Judges are described with respect to their prestige rank and other aspects of their social position in the community and with regard to certain of their personality characteristics. *Competency* is defined in terms of the amount of agreement of a judge's ratings with the composite rating. Three types of measures are employed in describing the ratings of each judge. These are: (1) rank order agreement as shown by the coefficient of correlation, (2) objectivity and discrimination in rating and (3) bias as indicated by the amount of deviation from the composite ratings.

### RANK ORDER AGREEMENT

The coefficient of correlation serves as a measure of the rank order agreement of the judges with each other and with the composite ratings. If

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<sup>1</sup>"Defining Prestige Rank in a Rural Community," *Sociometry*, Vol. VIII, No. 2, pp. 199-207. See also by the writer, *Prestige Classes in a New York Rural Community*, Cornell Ag. Exp. Sta. Memoir 260. This publication and the present paper are based on data from a research project conducted by the author and sponsored by the Department of Rural Sociology and the Agricultural Experiment Station of Cornell University during the years 1940-42. This study was under the general supervision of Professor Leonard S. Cottrell, Jr.

<sup>2</sup>Status may be defined as a relative rank in an inferiority-superiority order. Prestige rank is regarded not as single but as a composite status. The mean of the ratings of the prestige judges is termed the composite rating. For further elaboration on these points see the two publications referred to in footnote 1.

the coefficient between the ratings of two judges is highly positive, it means that the judges placed persons in much the same rank order.<sup>3</sup> It is shown below, however, that the judges need not have ranked individuals in the same classes.

Measures of rank order agreement, prestige discrimination and objectivity for the 14 prestige judges are related to certain of their social characteristics in table 1. The extreme left hand column of coefficients in table 1 are computed on all the ratings of a given judge. These coefficients are each computed on a slightly different population; e.g., rater A might know 8 persons that rater C does not know while rater C knows 3 individuals unknown to rater A. The computation of correlation coefficients on somewhat different populations affects only slightly the relative size of the coefficients. This is shown by comparing the left hand and middle columns of coefficients. The coefficients in the middle column are computed on 151 cases which 13 judges including the writer knew in common.

The right hand column of coefficients are computed on all the ratings that a given judge had in common with the writer. The coefficients of most judges with the writer are relatively high, although not as high as the coefficients of the judges with the composite ratings. This might be expected as the former coefficients are computed on independent ratings while the latter coefficients are calculated on ratings which determined the composite. There is no mathematical necessity, however, why ratings which determine the composite should be highly correlated with it. Thus, the high coefficients would seem to indicate that the judges were well agreed on the relative prestige rank of community members.<sup>4</sup>

<sup>3</sup>A coefficient of correlation which approaches a +1.00 indicates not only a high rank order agreement but also that the rank order agreement is proportional. The term coefficient of correlation refers to the Pearsonian coefficient. All correlation coefficients presented are checked with "Table V. A.," in R. A. Fisher's *Statistical Methods for Research Workers* (3 ed., 1930). On all coefficients used the chances are much less than one in a 100 that the occurrence of so high a coefficient is purely fortuitous.

<sup>4</sup>The high correlation of the writer's ratings with the composite might be interpreted as some indication of the reliability of the composite ratings. See Guilford, J. P., *Psychometric Methods* (1936), p. 279. It would have been of interest to have had the judges rank the population a second time and to have correlated the two ratings. Whether the ratings of the judges have validity depends on the criterion of prestige rank. If the composite rank is taken as the criterion, the ratings of most of the judges have a high degree of validity.

If the ratings of all the judges had been intercorrelated, groupings of judges who agreed more highly among themselves than with the others might have been indicated.

TABLE I  
ASSOCIATION OF SELECTED MEASURES OF THE RATINGS OF THE 14 PRESTIGE JUDGES WITH THE PRESTIGE RANK AND OTHER  
SOCIAL CHARACTERISTICS OF THESE JUDGES

Judge's Symbol	Prestige Class	Occupation	Coefficient of Correlation* With:		Number of Classes Used	Degree of Objec- tivity <sup>b</sup>	Per Cent of Ratings Unique <sup>c</sup>
			Composite Ratings	Writer's Rating All Cases			
H <sup>w</sup>	1	Retired Teacher	.88	.80	9	G	1.1
I	1	Teacher	.77	.60	6	F	4.8
E	1.5	Teacher	.83	.75	6	F	2.3
A <sup>w</sup>	2	Retired Teacher	.85	.88	6	F	0.6
G <sup>o</sup>	3	Merchant	.79	.73	7	F	2.4
C <sup>w</sup>	3	Housewife	.87	.86	6	F	4.5
K	3.5	Farmer	.86	.71	6	G	0.8
M <sup>o</sup>	3.5	Farmer	.62	.52	5	P	9.2
L	4	Farmer	.79	.68	10	G	2.1
P <sup>w</sup>	4	Student	.38	.34	4	F	7.9
F	4.5	Unskilled	.72	.70	6	P	7.8
N <sup>w</sup>	5	Housewife	.74	.64	4	P	16.9
O	5	Student	.41	.33	5	P	26.8
J	6	Unemployed	.80	.79	7	G	1.3
Writer	—	—	.87	.92	11	—	0.5

<sup>a</sup> All coefficients are positive.

<sup>b</sup> G=Good, F=Fair, and P=Poor.

<sup>c</sup> Deviate more than 1½ classes from composite.

<sup>o</sup> Oldlander, a member of an immigrant group of recent European origin.

<sup>w</sup> A woman judge.

Only three judges—M, P and O—had coefficients of correlation below +0.74 with the composite ratings. Judges P and O were both high school students.<sup>5</sup> In terms of the measures presented in table 1 and those discussed below, judge O was the least accurate of all the raters. Judge O was retarded in school. He was a member of a family and kinship group whose composite rating was class 5. Neither he nor his family were socially mobile. He seemed to lack a sense of prestige distinction and a basis of evaluation that other judges possessed. He placed himself and his family in class 2 and seemed to rank community members more in terms of his like or dislike for them than according to some accepted criteria of prestige.

In contrast to judge O, judge P was regarded as a brilliant student, was decidedly aware of prestige distinctions and was socially mobile. She was planning to attend college and has done so on graduation from high school. Judge P, however, was a member of the Oldland Merchandising Association grouping.<sup>6</sup> This group was relatively isolated from the Yankee population and thus judge P shared only partially, if at all, in what consensus there might be in the community concerning the prestige standing of many individuals.

Judge M is seen to have had a correlation with the composite rating higher than judges O and P but noticeably lower than the other 11 judges. Judge M, an Oldlander, knew most members of the community but had few intimate contacts. He was unmarried and in recent years had either lived alone or in households without women members.

#### OBJECTIVITY AND DISCRIMINATION

In the three right hand columns of table 1 are presented measures which indicate a judge's awareness of prestige distinctions and his objectivity and sophistication in rating. The number of classes used may be considered an index of a judge's ability to discriminate prestige differences. Some judges placed the population in six or more classes with relative ease and stated they could make finer prestige distinctions if necessary. On the other

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Some indication of the judges who were most in agreement with each other is seen below in a discussion of bias.

<sup>5</sup>The question might be raised as to whether youth in their teens have sufficient comprehension of community values to be adequate judges of prestige rank. There is not sufficient evidence here, however, to indicate an answer to this question.

<sup>6</sup>Members of an immigrant group of recent European origin, which formed about one-fifth of the community population, are designated as Oldlanders. The remainder of the population is called Yankees.

hand, four judges were unable to discriminate as many as six classes. Three of these judges were raters M, P and O described above; the fourth was judge N who was also of lower prestige rank.

The writer ranked the judges as to their degree of objectivity in the rating procedure. As is shown in table 1, the objectivity of a judge was regarded good, fair or poor. The four least objective judges were in classes 3.5-5, but the four most objective raters varied widely in prestige rank—classes 1, 3.5, 4 and 6. The objectivity of a judge was revealed by his ability to distinguish between his own like or dislike of an individual and how other community members regarded this individual. Some judges had keen insight in this respect while others were unable to discriminate between their relationships with an individual and the individual's prestige rank in the community. A judge's ability to rank himself accurately is also an indication of his objectivity. Four judges gave themselves almost the same rank as the composite rating.

In the right hand column of table 1, the percentage of a judge's ratings which deviates more than  $1\frac{1}{2}$  prestige classes from the composite is shown. Such deviant ratings are termed *unique*. As would be expected, the more objective judges made fewer unique ratings. The number of unique ratings is also influenced by the number of classes used and by the shape of the distribution of a judge's ratings. Judges N and O who had the highest proportion of unique ratings used relatively few classes and had decidedly skewed distributions.

There seems to be some relationship between the amount of rank order agreement and measures of objectivity and prestige discrimination. That is, some judges, such as H and K, were relatively high on all these measures while other judges, such as O and M, were much lower on all of them. An exception to this generalization is judge N who had a coefficient of correlation with the composite ratings of  $+0.74$  but was low on all the other measures. Judge N ranked a relatively large proportion of the population—all whom she seemed to regard as near her in prestige rank—in classes 5 and 6, but was able to place these persons in a rank order similar to the composite ratings.

Judges of higher prestige rank were more likely to have greater accuracy in rating in terms of the measures described above than those of lower rank. An outstanding exception to this statement is judge J. This judge was one of the most able raters, although he occupied by general agreement the lowest prestige rank in the community—class 6. He had broken the sex and property mores and was frequently unemployed. He was a member of a



family, however, who at one time had occupied relatively high prestige rank. Also, he had lived much of his life outside the community and for this reason he probably had better insight as to prestige distinctions.

#### TOTAL AND SYSTEMATIC BIASES

A judge's bias in rating an individual is defined as the difference between the judge's rating and the composite rating. The measure of rank order agreement and that of bias are distinctly different measures although judges with the highest coefficient of correlation were likely to have the lowest total bias. Several types of bias are described and they are seen in relation to a judge's position in the community.

The *total bias* for a judge is computed by summing without regard to sign the differences between the judge's ratings and the composite ratings and dividing by the number of ratings. The *systematic bias* for a judge is computed in the same manner except the differences are summed with regard to algebraic sign; the sign is determined by whether a judge's rating is higher or lower in terms of prestige than the composite.<sup>6\*</sup> A positive or plus sign indicates that a judge has placed an individual or class of individuals higher in prestige than the composite ratings. A negative or minus sign denotes the opposite.

The distribution of the ratings of the prestige judges are of four general types. These are (1) the bell shaped, (2) the skewed "upward," (3) the skewed "downward" and (4) the "stretched." The composite distribution is bell-shaped. Seven of the judges, most of whom were of middle prestige

<sup>6\*</sup>The systematic bias for a judge is the difference between the mean of the composite ratings and the mean of the ratings for a given judge (difference between means). Both the total and the systematic biases are mean deviations of a judge's ratings from the composite ratings (mean of differences). See Guilford, *op. cit.*, p. 273. The computation of these two types of bias may be illustrated: Assume a population of 2 instead of 340, also assume the composite rating for these two persons is class 3 and that a judge has placed one person in class 1 and the other in class 4. The total bias, therefore, equals  $(3-1) + (3-4)$  equals  $2+1$  divided by 2 equals 1.5; the systematic bias is  $(+2) + (-1)$  over 2, or  $+0.5$ . The systematic bias is computed with the composite ratings, not a judge's ratings as the minuend. The reason for this is that the prestige classes have been numbered in the reverse of their amounts, i.e., class 1 is highest in prestige but lowest in numerical value. Thus, in order to keep the notation consistent the rater in the above example is said to have a positive bias. This means that he has placed individuals higher in prestige than the composite rating (lower in numerical value); a minus sign means that a judge places individuals lower in prestige than the composite (higher in numerical value).

TABLE 2.  
TOTAL, SYSTEMATIC AND "CLASS" BIASES OF THE 14 PRESTIGE JUDGES RELATED TO THE PRESTIGE RANK AND OTHER SOCIAL CHARACTERISTICS OF THE JUDGES.

Judge's Symbol	Prestige Class	Occupation	Total Bias	Systematic Bias		Class Bias* on Yankees	
				All Persons	Yankees	Upper Classes (1-2.5)	Lower Classes (4.5-6)
H <sup>w</sup>	1	Retired Teacher	.55	+ .40	+ .42	+	+
I	1	Teacher	.64	-.20	-.12	-	+
E	1.5	Teacher	.56	-.42	-.43	-	0
A <sup>w</sup>	2	Retired Teacher	.46	+ .16	+ .13	0	-
G <sup>o</sup>	3	Merchant	.60	+ .15	-.07	++	+
C <sup>w</sup>	3	Housewife	.76	-.20	-.11	++	-
K	3.5	Farmer	.44	-.03	+ .03	+	0
M <sup>o</sup>	3.5	Farmer	.71	-.04	-.01	+	+
L	4	Farmer	.44	-.07	+ .02	-	+
P <sup>w</sup>	4	Student	.86	-.20	-.49	-	+
F	4.5	Unskilled	.86	+ .77	+ .75	-	+
N <sup>w</sup>	5	Housewife	1.01	-.60	-.55	+	+
O	5	Student	1.25	+ .68	+ .69	-	+
J	6	Unemployed	.48	-.24	-.23	-	+

a A "+" indicates that a judge ranked a given group between 0.1 and 0.3 classes higher in prestige than his systematic bias for the total Yankee or Oldland population. A "++" over 0.3 class higher and a "0" less than 0.1 class higher or lower. The reverse interpretation applies to the "-" and "--."

o Oldlanders.

w A woman judge.

rank, closely approximated the bell-shaped type of distribution. If a judge placed a relatively large proportion of the population in the upper classes his distribution was skewed "upward," and he had a positive systematic bias, while the distribution was skewed "downward" and a negative systematic bias existed if the opposite were done. In the "stretched" distribution both the upper and the lower classes have a much larger proportion of the population than these classes have in the composite distribution.

Biases of the prestige judges are presented in table 2. Judges in the middle prestige classes are seen to have had the lowest systematic biases while judges with the highset biases are in classes 1, 1.5 and 4-5. This raises the question whether persons in the middle prestige classes are not in a better position to evaluate the extent and nature of stratification than are individuals of higher or lower rank.

Judges K and L had the lowest total bias and a very small systematic bias. These judges also had relatively high coefficients of correlation with the composite ratings and ranked high in terms of other measures described above. Judges K and L were Yankee farmers whose middle prestige class rank was relatively well recognized. Both persons, from the standpoint of their social positions, were average or above in the extent of formal and informal contacts with other community members. Judge K might also be described as an especially mild mannered individual.

Judges with the smallest total biases were likely to rate the highest on the measures described above in table 1. Judge C was the only one of the six raters with a total bias of more than 0.70 class who ranked relatively high on these other measures.

In terms of the various measures of a judge's ratings, it would seem that the least accurate raters were judges O and N in class 5, F in class 4.5, P in class 4 and M in class 3.5. In other words, the least accurate judges were likely to be in the lower or lower middle prestige classes.<sup>7</sup>

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<sup>7</sup>The proportion of the total bias of a judge which may be accounted for in terms of the systematic bias varies from rater to rater. This may be seen from Table 2.

A proportion of the bias of some judges may be explained by their inability to make finer prestige distinctions and their lack of sophistication with the rating scale procedure. Judges N and O, for example, have both large total and systematic biases. The former judge employed only 4 classes, the latter 5. Judge N ranked no one in class 4. If the ratings this judge placed in class 5 are put in 4 and the ones she placed in class 6 put in class 5, her systematic bias for the total population is decreased from -0.60 to -0.18 and her total bias from 1.01 to 0.64. A similar type of change in the ratings of judge O also decreases both his systematic and total biases. Had these judges used more classes it is likely that their biases would have been still smaller.

## CLASS BIAS

A considerable proportion of the total bias of some judges may be interpreted in terms of their class bias. Biases on the upper and lower prestige class Yankees are shown in the two left-hand columns of table 2.<sup>8</sup> These biases are the differences between the systematic bias for these classes and that for the total Yankee population. A single plus indicates that a judge ranked the given classes between 0.1 and 0.3 of a class higher in prestige than his systematic bias for the total Yankee population denotes. A double plus means over 0.3 class higher and a zero less than 0.1 class higher or lower. The reverse interpretation is applied to the minus and double minus. Judge H had a systematic bias for prestige classes 1-2.5 greater than +0.42. That is, she ranked these classes even higher in prestige than the +0.42 would denote.<sup>9</sup> On the other hand her systematic bias for prestige classes 4.5-6 was very small which means that she ranked these classes much lower in prestige than her general bias of +0.42 would indicate. Judge I followed the reverse pattern. He ranked persons in prestige classes 1-2.5 lower than his -0.12 bias would indicate and individuals in classes 4.5-6 much higher.

If a judge lacked a class bias it would seem that he would raise and lower classes above and below his systematic bias in a random fashion. This is precisely what the writer did.<sup>10</sup> On certain classes judges E, A, and K had the same random variations.

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Two other types of biases, which have been observed in a number of studies, may be noted. These are the "error of central tendency" and the "halo effect." See Guilford, *op. cit.*

<sup>8</sup>Class bias was computed on Yankees only because some judges had a different type of bias on Yankees than on Oldlanders and because few Oldlanders had been ranked in the upper and lower prestige classes.

<sup>9</sup>It is impossible, of course, for a judge to have a positive bias on class 1 or a negative bias on class 6 as these classes represent the highest and lowest prestige ranks.

<sup>10</sup>The ratings of the writer and another judge may serve as an illustration as to how the systematic biases for the various prestige classes vary around the general systematic bias. The writer had a general systematic bias for the Yankee population of -0.02. His deviations from this general bias for each of the 10 prestige classes from 1 through to 5.5-6 are as follows: -0.18, +0.05, -0.09, 0.00, -0.06, +0.05, +0.04, -0.02, -0.02, +0.02. This series of deviations is to be compared with that of judge L who had a distribution and a general systematic bias almost identical to those of the writer. The variations around the general systematic bias of +0.02 for rater L are: -0.22, -0.02, -0.05, -0.50, -0.37, +0.01, +0.29, +0.46, +0.28, +0.29. This series of variations is not nearly as extreme as it is for some raters. The variations generally change from a plus to a minus, or a minus to a plus in prestige classes 3-4. The extreme variations occur in classes 2 and 2.5, and 4.5 and 5.

Seven judges followed the pattern of "lowering" the upper prestige classes and "raising" the lower classes, while three judges followed the opposite pattern. It seems significant that six of the seven judges which were more lenient in rating the lower classes than the remainder of the population were members of prestige class 3.5 and below. Judge N, who had a large negative systematic bias for the total population, was the only lower class rater who was more lenient on the upper classes than on the lower classes.

The four judges who "lowered" prestige classes 4.5-6 were women. These judges were H in class 1, A in class 2, C in class 3 and N in class 5. In addition, judge E, in prestige class 1.5 who did the rating with his wife, had a large negative systematic bias on these classes. The negative bias on the lower classes may be accounted for by statuses possessed by certain lower class persons. Breaking of the sex mores, gambling, excessive drinking, "lacking something which substantial citizens have" seemed to have decided negative value for the five judges just noted. Judges H and A were quite explicit on this point and frequently stated that an individual was given a low rank largely because he possessed one of the above statuses. On the other hand, judges with a positive bias on the lower prestige classes were more lenient toward these statuses.

The major statuses responsible for a positive bias on the upper classes were membership in a "good family" and extensive participation in the organized life of the community. Several of the upper prestige class judges, especially raters H and A, had a much higher regard for these statuses than did the lower class judges. Judges H and A were retired teachers and participated extensively in organized activities.

Judges had one of two reactions toward persons with a prestige rank similar to their own. Most judges, especially those in the lower classes, were more lenient toward these persons. As has been seen, for example, most lower class judges had a positive bias on the lower classes and a negative bias on the upper classes. On the other hand, some judges, raters I, E, and N, were more severe in rating individuals with prestige rank similar to their own than in rating other persons. These judges seemed envious of persons who were similar to themselves in prestige. This attitude was especially obvious in the interviews with raters I and E. These judges were male teachers in the central school.

#### CHARACTERISTICS OF A COMPETENT JUDGE

At this point it may be well to summarize the ratings given by the 14 judges. These ratings have been interpreted in terms of the value orientations



and rating abilities of the judges. The accuracy of the ratings of a judge have been determined by the degree to which they approximate the composite ratings. The measures of a judge's ratings used are (1) the coefficient of correlation of a judge's ratings with the composite, (2) indices of objective, (3) indication of prestige discrimination and (4) selected biases.<sup>11</sup> Judges who ranked high on one measure were also likely to be relatively accurate on the others, and vice versa. The ratings of 11 of the 14 judges had a coefficient of correlation of  $+0.74$  or above with the composite ratings.

According to the above criteria, there was probably no more competent rater than judge K. Judge K, in prestige class 3.5, was a respected but not a prosperous farmer. He was well acquainted with the community members. He had both organized and informal contacts with the upper and middle prestige class Yankees, who controlled most of the organized life of the community. In this respect he had an advantage over most of the lower prestige class judges. He also had some direct contacts with both factions of the Oldland population.

Judge K was sensitive to prestige distinctions, yet he was not socially mobile. He did not exert great effort to rise in prestige so he was neither envious nor sycophantic toward persons with a rank above or similar to his own. The group memberships of judge K did not involve him in a conflict situation, so that he had no extreme identification with any one group. This judge was probably able in most cases to distinguish between his own like or dislike for a person and the way he thought the community regarded this individual. He gave himself a rank very similar to the composite rating. The coefficient of correlation of his ratings with the composite was  $+0.86$  and the distribution of his ratings was very similar to that of the composite.

In conclusion, it may be said that the analysis of the ratings of the 14 judges has been highly suggestive of certain hypotheses. Although this is true, the number of raters has not been sufficient for statistical verification. For this purpose a larger number of judges is needed in each of the major social positions.<sup>12</sup>

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<sup>11</sup>An additional factor, not mentioned above, which increased the total bias of some judges was their ignorance of the person rated. It was sometimes obvious that a judge would have ranked a person differently had the judge known that this person possessed certain statuses.

<sup>12</sup>In addition, it might be well to compare various procedures of procuring ratings and of determining composite values.

## PRESTIGE RATING AS A PROCEDURE IN COMMUNITY ANALYSIS

In this and a preceding paper<sup>13</sup> the rating procedure has been explored as a method of defining social classes in a rural community. This method needs to be compared with other techniques of class definition such as the socio-economic scale and single indices, as income, occupation and tenure status. Methods of class definition may be compared on the basis of two criteria. These are (1) the accuracy of prediction of a given classification and (2) ease with which the research procedure may be administered. The predictive value of the various methods of class definition may be determined by associating each type of classification (prestige classes, socio-economic classes, etc.) with the factors considered to form the social class complex, such as income and indices of social participation.<sup>14</sup>

The ease of conducting prestige ratings would depend to a great extent on the number of judges that is necessary to obtain a valid composite rating. If two or three judges were sufficient the rating procedure would of course be much simpler than if 20 or 30 judges were necessary. The above analysis suggests that a valid composite rating might be secured with only a few judges if they are carefully selected. Perhaps a few competent judges in conference with the researcher could arrive at a more exact rating than judges working separately. It would appear that this method would take less time than an interview with each family which is sometimes the procedure in using a socio-economic scale.

The number and type of judges needed for a valid rating depend to a considerable extent on the manner in which prestige rank in a community is actually determined. One's prestige rank is defined by the effective public opinion in the community. The opinion of each community member is not of equal importance, however, as the lines of social influence radiate from the upper classes. The opinions and values of those who control the formal organization and who have extensive informal contacts are the most important. For this reason the ratings of judges in the higher prestige classes should have proportionally greater weight in determining the composite rank.

<sup>13</sup>"Defining Prestige Rank in a Rural Community," *Sociometry*, Vol. VIII, No. 2, pp. 199-207.

<sup>14</sup>For other factors which might be considered to form part of the class complex, see Chapin, F. S., *The Measurement of Social Status*, (1933); Sewell, W. H., *The Construction and Standardization of a Scale for the Measurement of the Socio-Economic Status of Oklahoma Farm Families*, Okla. Ag. Exp. Sta. Technical Bul. 9, (1940); and Kaufman, *Prestige Classes in a New York Rural Community*, Cornell Ag. Exp. Sta., Memoir 260.

This has been the case in this study. It seems significant that the highest consensus concerning prestige rank was among the upper and middle prestige class judges while there was much less agreement among the lower class judges.

The prestige rating procedure has two important methodological characteristics: (1) it is a method in which the operations are made explicit and (2) no assumptions need be made as to criteria of prestige. One function of this method is its use in discovering what statuses form prestige rank in a given community. On the other hand, the assumption must be made in using a measure of socio-economic status that the population studied has a value system similar to the one on which the measure was validated.<sup>15</sup> Such an assumption in most cases is probably to a greater or lesser degree justified. In this study the coefficient of correlation of the composite prestige ratings with the Sewell socio-economic scale was  $+0.71$ .<sup>16</sup> It seems probable that the scale found most widely applicable would not be likely to have an extremely high correlation with prestige ratings in any one community. This would be consistent with the hypothesis that each community has to some extent its own unique configuration of social values.

In the delineation of the class structure, prestige ratings provide insight as to the dominant social values of a community.<sup>17</sup> Such knowledge is of decided value to administrators and others planning educational and action programs. One should first analyze the existing value system in order to orient effectively educational and propaganda material aimed at changing basic behavior patterns of a people.<sup>18</sup> If programs are attempted that conflict

<sup>15</sup>The hypothesis on which a socio-economic scale is constructed is the result of an investigator's informal rating procedure. The investigator perceives that certain factors constitute or are related to what he defines as socio-economic status, and he proceeds to select those items which are discovered to be the most valid and which are not too difficult to obtain.

<sup>16</sup>This scale is found in Sewell, *op. cit.* The coefficient of correlation of the composite ratings with the Sewell scale on the Yankee population was  $+0.76$  but on the Oldland population it was only  $+0.35$ . Statuses considered in the rating procedure that were not taken account of in the scale were the ethnic, holding of deviant political and economic beliefs, breaking of the sex and family mores and excessive drinking.

<sup>17</sup>This is especially true if rapport is established with judges and they express their opinions freely concerning persons rated.

<sup>18</sup>Wilson, M. L., *Cultural Approach in Extension Work*, U. S. Dept. Ag. Ext. Ser. Circular, 332, (1940). "It would be a difficulty," this writer states, for administrators and professional leaders "to over-emphasize the importance of these value systems" in educational programs, such as those promoted by the agricultural extension service.

with the basic values of a group, either covert resistance or open hostility is likely to result.

In addition to possible insight into the major social values, prestige ratings may also give some indication as to the persons of influence and the nature of social control in a community. A major problem in many rural programs has been the selection of adequate leadership.<sup>19</sup> It seems probable that too often an individual has been chosen for a leadership position because of his acquaintance with some official or his occupational skill while his prestige and influence with his associates have been overlooked.

Prestige ratings not only provide information concerning the persons rated but also on the judges themselves. In this respect prestige rating may be considered as a technique in personality study. The definition of an individual's social position that is given by others may or may not be related to his own definition. This self definition may be inferred by the way in which one regards others in relation to himself. Judges J and O described above occupied very similar social positions as defined by other community members but these judges varied greatly in the way they regarded others. The problem of selecting prestige judges is complicated by the fact that the more obvious aspects of an individual's social position do not necessarily indicate his conception of others in relation to himself. A major aim in the analysis of the prestige judges was to discover the relationship that might exist between the more obvious aspects of a judge's social position, such as his composite prestige rank and ethnic group membership, and his self-other definitions.<sup>20</sup>

Along with possible research values of the rating method, certain limitations should also be noted. Prestige ratings are to a large extent a folk definition and consequently are subject to the limitations of such a definition. Certain inadequacies and biases of the prestige judges have been described above. Untrained judges frequently ignore data that are of significance to the experienced researcher. Thus, if an intensive analysis is desired, it would be well to employ the rating procedure along with other techniques of class investigation.<sup>21</sup>

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<sup>19</sup>Certain aspects of this problem during the war period are discussed in the *Second National Neighborhood Leader Conference March 3 to 6, 1943*, Ext. Ser. Circular 404, U. S. Dept. Ag.

<sup>20</sup>The question might be asked if the most accurate judges of prestige rank would also be most competent to give other types of general information. The problem of selecting competent residence observers is a central one in many field studies, and is a matter which should receive more research attention.

<sup>21</sup>See Kaufman, *op. cit.*

Another possible limitation of the rating procedure is the problem of interpretation that is presented in comparing prestige rank from one community to another. The highest rank in one community may consist of much different statuses than are implied by the same rank in another community.

A third type of problem that the rating method presents is that the larger the community the smaller the proportion of the population a judge would know and thus be able to rate.<sup>22</sup> In the larger communities a method of sampling would need to be employed and more responsibility would be placed on the investigator in supplying missing ratings.

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<sup>22</sup>This is not an insurmountable difficulty as is seen in the "Yankee City" study in which the population of a small city was ranked as to social class. See Warner, W. L., and Lunt, P. S., *The Social Life of a Modern Community*, (1941).



## MOTION PICTURE PSYCHOTHERAPY OF PSYCHOTIC DEPRESSIONS IN AN ARMY GENERAL HOSPITAL

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AND

ELIAS KATZ, 2ND LT. MAC<sup>1</sup>

Since the inception of the Social Therapy Program of the Neuro-psychiatric Section of the Medical Service, motion pictures have been used for entertainment, for instruction, and for therapy. In August 1945 a set of Auroratone films was donated by the Auroratone Foundation of America, Inc., Hollywood, California, to this hospital for experimental purposes. The following is a preliminary report on the use of these films as a psychotherapeutic agent in the treatment of soldiers with psychotic depressions.

Auroratone films were invented by Mr. Cecil Stokes, founder and director of the Auroratone Foundation. They may be described as abstract colors in multi-formed crystalline shapes, blending and ever-changing in synchronization with accompanying slow, sedative and somewhat sad music. The selections in the series we used were "Clair de Lune", played by Andre Kostelanetz and his orchestra, "Going My Way", sung by Bing Crosby accompanied by Lt. Col. Edward Dunstedter, AAF, who played the organ in the rest of the selections, "The Lost Chord", organ solo, "Home on the Range" sung by Bing Crosby with organ accompaniment, "I Dream of Jeanie with the Light Brown Hair", organ solo, and "Ave Maria" (Schubert), sung by Bing Crosby with organ accompaniment. In each selection there is a suggestion of appropriate naturalistic settings, but the abstract color patterns are the dominant material on the screen. The total running time of the series is about thirty minutes.

Our first experiences were largely exploratory. At first patients representative of the various types of psychoses were exposed to the films. After a period of observation it became apparent that manic-depressive patients in the depressed state benefited most. Investigation has been made into the effects of these films on this type of patient, and a comprehensive report is now in preparation.

The films were shown to the patients in small groups, ranging from five to ten, three or four times per week. Observations of the effects of the films were made by psychologists and the psychiatrist. Following each showing, a period was devoted to a group discussion led by the psychiatrist.

Observation has revealed certain behavior patterns characteristic of the

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reactions of many of the depressed patients. First, most patients evidenced intense absorption in the pictures and in the music. Their eyes remained on the screen during the showing, with the exception of moments of restlessness from time to time, usually during the few seconds between selections when no music was played. This absorption has been observed in many patients who have been exposed for as many as fifteen times to the same series of films.

Second, physical relaxation appeared to spread over the patient during the course of the film showing. Even in the violently agitated, there was a progressive relaxation, while stereotyped motor phenomena became less intense or disappeared.

Third, many patients wept during the playing of certain selections. Most common stimulators of weeping appeared to be the selections "Home on the Range", "The Lost Chord", and "Ave Maria". However, tendency to weep did not persist after many repetitions.

Fourth, most of the patients became more accessible following the Auroratone presentation. Weeping provided an emotional catharsis which rendered the patient more open to individual and group psychotherapy. Patients previously mentally blocked with speech retardation, established rapport with the psychiatrist and spoke more freely following exposure to the films.

An appreciation of the psychodynamics of the effects of the Auroratone films on manic-depressive depressed patients is of fundamental significance, both to understand the nature of the observed reactions, and to improve techniques of effective applications of Auroratone films for purposes of psychotherapy.

It is well known that sensations and responses to stimuli depend upon a normal, organically sound nervous system. Sensations are received by sensory end organs located in the skin, eyes, ears, mouth, nose, and internal organs of the body. These sensations are transmitted to the levels of the brain, including the thalamus and hypothalamus. The hypothalamus acts as an integrating station for visceral and somatic reaction patterns (2). From there sensations are carried by nerve tracts to the cerebral cortex where association patterns are established and translated into emotional responses.

Perceptions are based on normal sensations. For example, when one

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<sup>2</sup>Fulton, John F., *Physiology of the Nervous System*, Oxford University Press, 1943, p. 250.

hears music, the sound waves are received by the ears, then carried by the auditory nerves through the levels of the brain to the mid-brain. From there impulses are carried to the area of the cortex where association patterns and centers of audition are localized. There the nerve impulses are received and translated into the perception of music. In the cortex, such perceptions are interpreted into concepts.

Concepts are memories or engrams of previous experiences, the result of past associations and of learned responses. Associations, once established in the cortex, become manifested in the "mind", or "psyche", terms meaning "the functioning of the brain". New associations can be linked to concepts based on past experiences and old associations. In the psychotic patient it is also possible to develop new association patterns. After the patient has become accessible to psychotherapy, new and more desirable goals can be introduced in order to speed his rehabilitation.

Even in the most severely blocked and deteriorated psychotic patients there is reason to believe that the aesthetic sense is lost last. It is also likely that sensitivity to music and to beautiful colors and shapes is an instinctual vestige. The manic-depressive depressed patients we observed were dynamically oblivious to ordinary stimulation, living in a world filled with their own preoccupations. Their responses and reactions were controlled by unconscious motivations. Their awareness of reality was shrouded by the overwhelming wave of unconscious ideations. Their mental processes may be compared with a traffic-jammed highway. When these patients were exposed to the Auroratone films two avenues of approach were opened into this highway (their inner life) by means of auditory and visual channels. Thus access was gained through instinctual and residual sensitivity to music and to beautiful color patterns.

Psychotic depressions react to everything about them in a morbid way. They act and see, as it were, through dark-colored glasses. They are accessible to sadness, and it is possible to establish rapport with them by reaching their mood level. Once accessibility has been achieved, they can ventilate their frustrations and complexes which are the causes of their ruminative and repetitive uncontrolled responses. This leads to emotional catharsis and to subsequent greater susceptibility to suggestive therapy.

Thus it happens that slow, soft, mildly sad music, and the slowly-moving, blending colors and shapes in Auroratone films have been so effective a tool in gaining accessibility to these patients, and in operating as a psychotherapeutic agent once accessibility has been secured.

In conclusion, ~~our~~ experiences have indicated that the Auroratone films

were beneficial for manic-depressive patients in the depressed state. In such patients, exposure to these films (1) provided emotional catharsis, (2) provided ventilation of ruminative, free floating ideas as occur in hypnagogic stupors and dream states, (3) rendered the patients accessible to psychotherapy, (4) gave the patients a sense of self-gratification of basic desires. By bringing the patients together in groups for the film showing and for group discussion following the films, a situation was set up which (5) served to instill a social sense and esprit de corps.

The use of therapeutic motion pictures such as Auroratone films, combining as they do both music and visual stimulation, has suggested new avenues for gaining access to these patients, thus facilitating the application of individual and group psychotherapy.)

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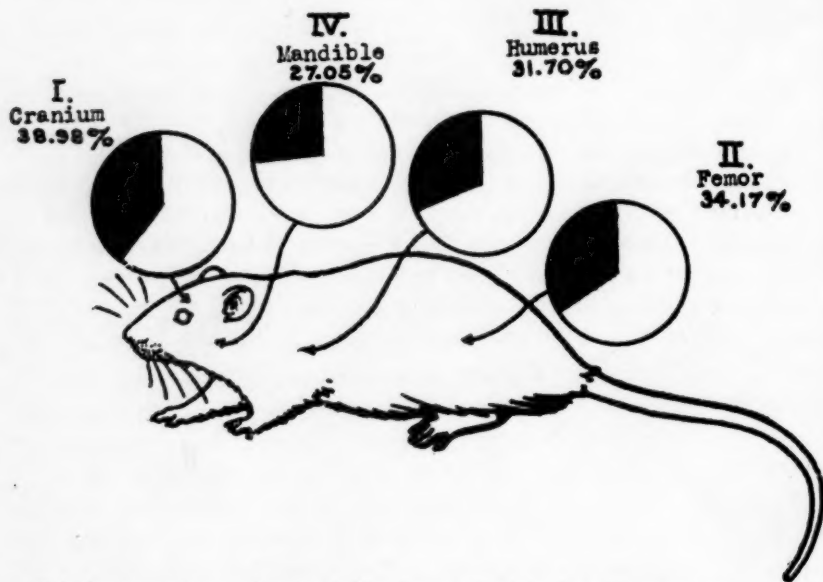
## OSSEO-DESICCATION AND SOCIOMETRY

In a paper published in the February issue of *SOCIOMETRY*, I mentioned the possibility of natural desiccation affecting interpersonal behavior, but I did not describe the exact nature of such desiccation which is modified by coat color genes. In reply to this article inquiry has been made for details.

The nature of these facts can be best illustrated by two diagrams that I prepared in 1941 for an unpublished paper entitled "The effects of certain coat color genes on the normal rate of water loss in the skeleton of the Norway rat." Diagram "A" represents graphically by means of black sectors the standard percentage of water found respectively in the cranium, mandible, humerus and femur of adult, gray Norway rats. The descending order of water percentage is cranium, femur, humerus, mandible.

Diagram "B" represents graphically by means of black sectors the decrease in average percentage of water found respectively in cranium, mandible, humerus and femur of twenty to twenty-two adult Cinnamon rats, in the case of each bone taking percentage of water normal for the comparable adult, gray rat standard as one hundred percent.

It will be noted in diagram "B" that the increase in natural osseo-desiccation accompanying the presence of the Cinnamon gene follows a



Relative percentages of water in the bones of adult Gray Norway rats.

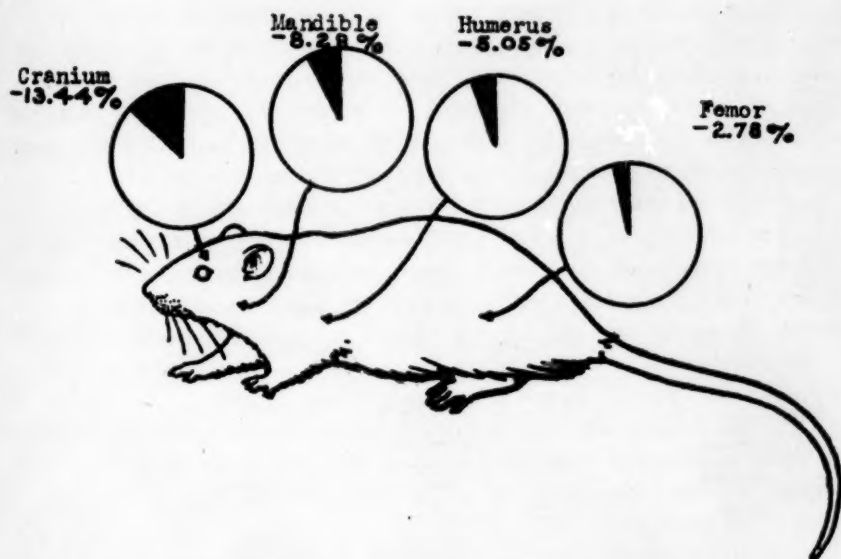


cephalo-caudadly oriented, axial gradient, that is, the Cinnamon gene has a decreasing degree of effect upon the normal water percentage in cranium, mandible, humerus and femor.

Five strains of rats containing coat color mutations were found to have an effect identical with that of the Cinnamon gene. Four other strains of rats containing coat color mutations were found to differ from the condition described in diagram "B" only in that reduction of water percentage for humerus is greater than that for mandible.

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Cephalo-caudadly oriented axial gradient of increased natural desiccation shown by five strains of rats due to mutant coat color genes. Four other strains differ from this only in that humerus reduction is greater than that of mandible. Figures for percentage of reduction in water content given in the chart are an average of those for 20 to 22 adult Cinnamon rats. The percentage of water normal for each region in the adult Gray Norway rat is taken as 100% for these comparisons.

## THE JEWS AND ANTISEMITISM

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### MISCONCEPTIONS ABOUT MISCONCEPTIONS

A social psychologist who faces the task of interpreting antisemitism in the light of his science finds himself placed in a not quite comfortable and even somewhat paradoxical situation. For he feels that he is expected to explain something, which, according to his own insight, in its essential aspects, does not require any *specific* explanation. Would, so he feels, our perception of social reality not be confused and distorted by certain misconceptions concerning "human nature" and the nature of intergroup relations, many things in antisemitism which now appear to be baffling and mysterious, would be understood as being rather natural and quite *obvious*. Thus, the main task which the social psychologist has to perform consists not as much in "explaining" antisemitism as rather in removing certain misconceptions we have in our mind which prevent us from perceiving certain "obvious" facts and understanding why certain things are as they are.\*

The situation of a social psychologist who has to analyze and to interpret antisemitism, however, is uneasy and paradoxical not only because he has to say many things which, in a certain way, are quite obvious. It is uneasy and paradoxical also because what he has to make explicit is, in spite of its obviousness, very *shocking*. For nothing is as shocking as certain obvious facts which we do not see, or do not want to see.

As the insight into the nature of antisemitism presupposes freeing ourselves from certain false pictures which we have in our mind and which prevent a correct perception of social reality, let us, first of all, discuss some of those misconceptions.

1. We tend to talk about "prejudices" as if they were something strange and peculiar, characteristic of some ignorant individuals, who have got to be "enlightened" so that they should become "normal" human beings, i.e., as "normal" and "unprejudiced" as we are ourselves. Now, if we understand by "prejudices" certain collectively conditioned and collectively shared false pictures which members of one social group hold about members of another group, and the emotional reactions which are partly a cause and partly an effect of these false pictures, then *being prejudiced*, in one way or another,

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\*See my article: "Why Psychologists Tend to Overlook Certain Obvious Facts", *Philosophy of Science*, 1943.

is a universal condition of man. For, of course, not only white people have distorted conceptions about the Negroes, and the (antisemitic) Gentiles about the Jews, but also the Russians have in their mind distorted pictures about the Germans, the Germans about the English, the English about Americans, the Americans about the Japanese, the Japanese about the Chinese, not to forget the misconceptions of the Jews about the Gentiles, and different groups of Jews about each other (the German Jews about the Polish Jews, the Polish Jews about the Lithuanian Jews, etc.).

The real problem we face, therefore, is *not* why do certain people have prejudices, but rather: why, although all people have prejudices, do we notice and are irritated by only some of them?\*

2. Another silent assumption found frequently among those who are discussing the problems of antisemitism is that antisemitism is an "abnormal" reaction to a "normal" situation. This assumption prevents a correct statement of the problem and a naturalistic analysis of the facts in question. For taking "human nature" (from which none of us is exempt) and the nature of intergroup relations for what they really are, antisemitism is rather a "usual" reaction to an unusual situation. In other words, the real problem is not so much the attitudes of (antisemitic) Gentiles and also not so much the characteristics of the Jews, but rather the unusual ("abnormal") social situation in which the Jews, being as they are, have to live.

3. The last misconception which we wish to discuss here is centered around the tendency to interpret antisemitism in terms of propaganda or in terms of the scapegoat theory. Both interpretations miss the essential point. As a matter of fact, antisemitism is a typical form of a *sociopsychological irritation* which arises inevitably in intergroup relations under certain definite conditions. All forms of sociopsychological irritation can be aggravated and exaggerated by propaganda, and exploited and abused by using the object of irritation as a scapegoat. However, neither the propaganda theory nor the scapegoat theory penetrates to the real problem, i.e., to the sources of the *original and basic irritation itself*. Aside from the fact that there are many forms of antisemitism which have very little to do with any kind of a deliberate propaganda and in which the scapegoat mechanism does not play any important role, these theories are unable to answer the question: why is antisemitic propaganda so effective? And why do the Jews lend themselves so well to being used as a scapegoat? To "explain" antisemitism in terms of

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\*Only the modern sociology of knowledge has a full understanding of this type of problem. See Karl Mannheim: *Ideology and Utopia*, 1936.

propaganda and of the scapegoat theory is as much lacking in deeper insight as to "explain" anti-capitalistic attitudes and sentiments of the workers as a result of some diabolical manipulation of the unionists or "bolsheviks".\*

These are some of the most important misconceptions which prevent a correct diagnosis of the problems here under discussion. We have to realize that understanding of the basic sources of antisemitism always implies also an understanding of the causes which prevent its understanding. To understand antisemitism means to understand the nature of intergroup relations, how they operate under certain conditions.

Once we are made aware of those misconceptions which prevent the stating of the problem in a correct perspective, the mechanisms underlying antisemitism cease to appear perplexing and mysterious. And the task of the social psychologist will, as mentioned before, consist mainly in making explicit certain "obvious" facts which are hidden behind the veil of those misconceptions.\*

#### THE NATURE OF UNCONSCIOUS NATIONALISM

There are two types of nationalism: conscious and unconscious. This distinction, usually ignored, is of paramount importance for an understanding of certain disturbances and antagonisms in intergroup relations.\*\*

We are dealing with the *conscious nationalism* if members of a national or quasi-national (cultural) group profess in an open way certain particular national ideals, when they strive consciously towards certain particular national goals, at the same time contemptuously rejecting, in a more or less aggressive way, the values, ideals, symbols, and goals of other national (cultural) groups.

When, on the other hand, the members of a national (cultural) group, even though not expressing in an articulate way any particular ideas and beliefs, nevertheless fundamentally are so involved in sets of nationally (culturally) prejudiced conceptions that, without being aware of it, they see and judge everything from their own national (cultural) point of view, then we are dealing with an *unconscious nationalism*.

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\*These two types of sociopsychological irritation are, to be sure, different in nature. Still, in both cases the real problem is to explain the sources of the basic irritation.

\*In addition to those "obvious" but often misunderstood elements in antisemitism, however, there are also some problems which actually require a specific explanation. With one of them we shall deal in our second essay.

\*\*See my article: "On Some Obstacles to an Understanding between the Nations", *Journal for Abnormal and Social Psychology*, 1940.

The conscious nationalist, if he fights, fights for America, or France, or Germany. The unconscious nationalist, if he fights, fights always for "humanity", or "justice", or "freedom", and does not realize that the way he defines these ideas and ideals is determined by his unconscious nationalistic frame of reference.

To put it another way: the conscious nationalist is nationalist and knows that he is nationalist. The unconscious nationalist, too, is nationalist; but he does not know it, or denies it, or even professes to be "against nationalism".

In trying to understand nationalism and its socio-psychological consequences, *we have always to analyze the national attitudes on two levels.* Ethnic and similar groups which on the conscious level appear not to be nationalistic at all, nevertheless are often profoundly so as far as their unconscious presuppositions are concerned. This unconscious nationalism may manifest itself on the conscious level in the disguise of most perplexing and confusing transformations and rationalizations. So, for instance, "pacifism" may sometimes be only the rationalization of the nationalistic attitudes of privileged groups which, being satisfied with the status quo, wish to enjoy it in peace. Or again, "internationalism" may be only the distorted manifestation of an unconscious nationalistic attitude of a certain group which, as we shall see later, hopes in a given situation to improve its national or quasi-national status by participating in an internationalistic or pseudo-internationalistic movement.\*

The unconscious nationalist, not being aware of his nationalistic frame of reference and its hidden motivations, thinks that he sees all relevant facts "as they are" and as they are seen by all "reasonable" persons. He is confirmed in this belief by the experience that other members of his group see certain basic things and issues the same way he sees them himself. On the other hand, he feels irritated by the fact that there are people who do

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\*What we have in mind in talking about "unconscious nationalism" corresponds, to some extent, to what Sumner has termed ethnocentrism. However, the analysis of ethnocentrism is frequently vitiated by an inadequate approach. For what basically characterizes the unconsciously nationalistic ("ethnocentric") person is not so much the feeling of superiority as rather the tendency to see everything from the point of view of the own group and not to be aware of this perspectivistically distorted social perception. We penetrate, therefore, to the core of the problem only if we analyse the attitudes here under discussion on two levels: as unconscious (or half-conscious) presuppositions, tendencies and sentiments on the one hand, and as manifestations and transformations of these unconscious presuppositions, tendencies and sentiments on the conscious level, on the other hand.



not have the same "objective" and "correct" conceptions of social reality which he is happy to possess, and does not realize that he, in turn, irritates those others who are as sure as he is himself that not he but they have the "objective" and "correct" conceptions. For it is a part of our very human nature that we all are irritated when other people do not have the same conception of reality which we have ourselves. We then wonder how it happens that others do not realize that they have "false" ideas about things "as they really are". Are they bad? Or are they stupid? Or are they misguided?

In the framework of this unconscious nationalism and its distorted conceptions, there are two factors which stand out as being of an especial importance: the misconceptions which the unconscious nationalists have about themselves (their own group and its members), and the misconceptions which they have about the "others". And here we have to stress again what we have said before: the main psychological point is not that they have those misconceptions but *that they are not aware* of having them. Thus, for example, the English have not only peculiarly distorted conceptions about "England" and the English people on the one hand, and about the "Frenchmen", the "Americans", the "Germans" on the other, but they are even not aware these are their "conceptions". Challenged, they would retort that these are not their "conceptions" but that these are simply "facts". It is already a sign of a relativistic sophistication if we are aware that certain things are not "facts" but our "conceptions about facts".

And that is why the great majority of the members of all national or cultural groups do not realize that, or do not understand why, they are disliked or hated by other groups. They simply are not aware that they have conceptions about themselves which deviate from the conception which others have about them. And not being aware that, at least partly, they evoke themselves animosities, antipathies and hostilities in others as reaction to their own characteristics, they invent more or less paranoid theories about the alleged causes of those actually quite natural reactions.\*

The question could be raised: which of these two conflicting conceptions is correct? Are we rather as we see ourselves? Or are we rather as we are seen by others? Let us make the point, first of all, that as far as interpersonal and intergroup relations are concerned, it is of secondary importance which of the two conceptions is more correct. The main thing is that, whether correct or not, they actually do not correspond to each other. And it is this

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\*This, of course, is only one side of the picture. However, it is this side in which we are interested in this context.

incongruence which causes the friction.\* Should, however, the question be pressed whether, by and large, our own conception about ourselves or the conception which others have about us is more correct, the answer would be this: in all probability *both* are distorted. Yet they are distorted in opposite directions: *we* have mostly an optimistic, and the *others* have mostly a (from our point of view) pessimistically distorted conception about our personality, or about our group.

As to the *psychological origin* of the unconscious nationalism, there can be little doubt that the respective attitudes have their roots in childhood, in the framework of the particular family experience. Even if one does not agree with the sweeping contentions of the (orthodox) psychoanalytical theories according to which all basic tendencies of adult personality have already been acquired in childhood, one has to recognize that many basic attitudes and sentiments which are at the bottom of personality structure can be traced to a very early period of life. It is also true that attitudes, sentiments, reaction patterns and stereotyped conceptions interiorized in the intimate atmosphere of family life remain effective and continue to operate at a *very deep level of human personality*. And this is why, in spite of all psychologically utopian Marxian theories, national solidarity prevails actually in all vitally decisive moments over solidarity based on class consciousness. For class consciousness is acquired, if it is acquired at all, only in later life as a reaction to certain socio-economic situations, and is therefore emotionally never as deeply rooted in the structure of personality as national sentiments and attitudes, which have their basis in childhood experiences. The Frenchman, for example, may be in doubt whether he ought to be democrat, communist, or fascist. However, there will never arise in him any doubt whether he "ought to be" a Frenchman. His nationality is so basically a part of his personality that it can never for him become a "problem". He takes it for granted. A problem or a dilemma can be only something which might be in doubt.

As a matter of fact, even before the First World War the European socialist movements and parties were "internationalist" in name only. The British, the German, the Polish socialists (and workers) always took for granted that they are British, German, or Polish. Without being aware of it, and in spite of all phraseologies, they were, in terms of a psychology of depth, always "national-socialist". The victory of Stalin over Trotzky, too,

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\*See my article "Structure and Dynamics of Interpersonal Relations", *American Sociological Review*, 1943.

was obviously in many ways a victory of a Russian "national-socialism" over the "international-socialism" represented by Trotsky.\*

Overlapping the basic difference between the unconscious and conscious nationalism is another distinction which, too, is very important with reference to the problems here under discussion: the difference between a rather passive, defensive type of nationalism and a rather aggressive, offensive type. Both, of course, can be either consciously or unconsciously offensive or defensive. The passive, defensive nationalism wishes only to preserve the identity and integrity of its own pattern and reacts only against any intrusion and disturbance coming from outside. The aggressive, imperialistic nationalism, on the other hand, is missionary in its nature and tries, consciously or unconsciously, to impose its own conceptions, ideals, and values upon the others.

However, before discussing the role of unconscious nationalism in Jewish-Gentile relations, we have to clarify still another problem concerning the nature and the types of disagreements in interhuman relations.

#### WHY PEOPLE DISAGREE

Why do people "disagree"? We mean, of course, why do they disagree in fundamentals? It is important to clarify this basic issue in order to understand the nature of difficulties between the Jews and the Gentiles.\*\*

It seems that there are *three fundamental types of disagreements in interhuman relations.*

*First*, there are disagreements which are the consequence of *conflicting interests*. Two groups want the same thing and the one side can get it only if the other side is prevented from getting it. It is the bias of the Marxian theories that they tend to interpret *all* intergroup disagreements in terms of those disagreements which are the result of conflicting (economic) interests. According to this extremely one-sided theory only conflicts of interest are "real" conflicts. All other intergroup conflicts are viewed as being only "superficial", or having the character of rationalizations. The

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\*About the interdependence between nationalism and socialism, between the "socialization of the nation" and the "nationalization of socialism" see the highly illuminating reflections in E. H. Carr: *Nationalism and After*, The MacMillan Co., New York, 1945, pp. 18-21.

\*\*In order to see the problem in a proper perspective, it is necessary to mention that it is by no means sure whether the Jewish-Gentile relations throughout history were more disturbed and more turbulent than the relations between other ethnocentric groups which were in close contact with each other, e.g., between different European nations.

truth is that conflicts which are not based on some more or less definite antagonism of (economic) interests are often much deeper, much more complicated, more desperately insoluble than conflicts of interests.

*Second*, there are *cultural conflicts*. In this case, people disagree with each other not because they have different interests but because they *are* different. And because they are different in their *personality structure*, they see the things in a different way and react differently to the things as they see them. In case of conflicts of interests we react antagonistically against others because they *act as they act*; in case of cultural conflicts, i.e., conflicts which involve a difference in personality structure, we react antagonistically against the others because *they are as they are*. In different historical periods and in different areas the cultural conflicts were centered around different kinds of content: some centuries ago they were centered around problems of religion; in our own age they are centered mainly around the problems of nationalism. We became more tolerant in the matter of religion not because we are essentially more tolerant but only because we are more indifferent about religion. The emotional involvement shifted towards national identification, and here we are not tolerant because we are not indifferent.\*

*Third*, there are *conflicts* between different *personality types*. What we have here in mind are those aspects of personality types which cannot be reduced to underlying differences of culture. We started only recently to realize that differences of personality types are significant with reference to different kinds of collective behavior. Political conflicts, for instance, are not only conflicts between classes (conflicts of interests), they are not only conflicts between cultures (conflicts between "races" and nations and nationalities) but they are often also conflicts between personality types. Modern psychologically and psycho-analytically-minded political scientists realize that it has, among other things, also something to do with very personal factors whether somebody is rather "conservative" or rather "radical", and even possibly whether he is "democrat", "communist", or "fascist". As the interdependence between cultural background and personality is very close, and different personality types are often only a reflection of different cultural types, it is sometimes difficult to decide whether a particular conflict should be characterized as a cultural or a personality type conflict.\*\* However, it would be erroneous to reduce all personality type conflicts to cultural

\*See Carlton J. H. Hayes article on "Nationalism as a Religion" in his *Essays on Nationalism*, 1926.

\*\*See Ralph Linton: *The Cultural Background of Personality*, 1945.

conflicts, for there are certain socially relevant differences of personality which cannot be described or explained in terms of the cultural background alone.

It is perhaps worth while at this juncture to make some remarks about the history of social thought with reference to the problems we are discussing here.

The realization of culturally conditioned differences of personality is, of course, not new among sophisticated people. However, even in the XIX and early XX century the assumption was that these culturally conditioned personality differences refer mainly to differences of values, whether esthetic or moral, to differences of manners, habits, and customs. Only in the last few decades have the social scientists started to realize that those differences go much deeper, that they affect the very perception of (social) reality. In other words, people not only disagree as to what is right or wrong, as to what is beautiful and what is homely, but also as to what is real.\*

The question arises: how do individuals and groups react to those different disagreements? How do they react to the fact that other people do not see the things as they see them themselves, and that they act and react differently? And how do they interpret this state of affairs?

The first characteristic reaction, or let us say, the first phase of reaction, is frequently a mixture of perplexity and irritation. It would be very disturbing to admit that things are possibly not as we see them. It would be still more disturbing to admit that possibly we see them as we do because we are as we are. And it would be utterly unbearable to recognize that things are not as we see them but that they are, at least partly, as they are seen by those with whom we disagree. The cultural relativism and social perspectivism is something which goes against the very core of our self-assurance, against the very core of "human nature".

A self-defensive interpretation or misinterpretation of the causes of disagreements is, therefore, inevitable, and forms the second phase of reaction. We are defending our partial, unconsciously self-centered and group-centered, misconceptions of social reality either by saying that those who do not see the things as we see them and do not react as we react, are "bad", or that they are "stupid" (or queer, or strange), or that they are "misguided". Let us realize that the great majority of all people "solve" the problems of interpersonal and intergroup disagreements which they face and in which they themselves are involved, by one of these three interpretations. And they

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\*See Louis Wirth's 'Preface to Karl Mannheim': *Ideology and Utopia*, 1936.



do not become even to the slightest degree suspicious that something might be wrong with their own assumptions. Only a very small minority is able to understand that not only the "others" but also we ourselves have a one-sided and therefore distorted conception of social reality. And that the others see the social world differently from the way we see it ourselves, not necessarily because they are "bad", or "stupid", or "misguided", but simply *because they are different*, or *because they react to a different situation* which we do not see from our own point of view.

#### THE UNCONSCIOUS NATIONALISM OF THE JEWS AND THE ANTISEMITIC REACTIONS\*

Summing up what was discussed in the preceding sections we can say that any kind of an unconscious nationalism is characterized by three basic factors: by the tendency of seeing certain collectively relevant facts and issues in a certain definitely distorted perspective of the own group; by certain definite misconceptions concerning the characteristics of the own group and its members; and by certain more or less definite misconceptions concerning the characteristics of the "others". And, of course, it is characterized by the lack of awareness of all those distortions and misconceptions.

These facts being as they are, it is inevitable that there obtains a state of *natural tension* between the various unconscious nationalisms, a tension which under certain circumstances takes the form of an open hostility. For whether we like to admit it or not, it is a fact that we can get along without tension only with those who see things which are important to us in a way similar to that in which we see these things ourselves, and who have conceptions about themselves and about us which correspond to the conceptions which we hold about them and about ourselves. Otherwise a certain degree of psychological repression and social friction cannot be avoided.

As Jews and Gentiles are, by and large, permeated by divergent forms of unconscious nationalism, the *basic tension* between them is quite "natural" and does not require any specific socio-psychological explanation.\*\* What

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\*If the Jews were the majority and the Gentiles the minority, the title of this section would have to be changed. It would then read: "The unconscious nationalism of the Gentiles and the anti-Gentile reactions of the Jews."

\*\*As a matter of fact, most studies about antisemitism do not deal with the sources of that basic tension but rather with various causes and conditions of its intensification. This would apply also to the highly illuminating findings of Moreno concerning the point of saturation for contrasting elements, the influence of sexual attraction, and the surplus of Jewish leadership as factors in Jewish-German relations. See J. L. Moreno:

does require a specific explanation is neither the unconscious nationalism, which, as a matter of fact, is universal, nor the basic tension which is inevitable, but rather the *characteristic manifestations* of the Jewish unconscious nationalism on the one hand and the *characteristic forms* which the basic irritation assumes in the case of Jewish-Gentile relations on the other. This is the problem which we wish to discuss in this and in the next section.

It is of no particular importance in this context whether the Jews are defined as a social, national, cultural, or religious group. A possible, but in many ways unsatisfactory definition, would sound something like this: A Jew is a person who, by and large (with many exceptions) can be socially identified by certain physical or quasi-physical characteristics (gestures, speech, manners, postures, expression of face, etc.); who has grown up in a Jewish family, characterized by a specific "Jewish atmosphere"; who consequently possesses, in the majority of cases, certain specific even if often elusive emotional and intellectual characteristics; who is considered by others as being a "Jew" and whose personality is significantly shaped by the fact that he is considered to be a Jew (with all that implies); who, strangely enough, is not clear himself whether his being Jewish means a religious, national, racial, or cultural classification, and who, again strangely enough, does not possess a country of his own.

We wish first of all to discuss the most paradoxical but at the same time perhaps most significant manifestation of the Jewish unconscious nationalism: their so-called internationalism. What are the real and deeper motives behind this Jewish propensity toward the one or other forms of internationalism? For the situation, faced psychologically, is this: the Jews, *like all other people*, are motivated in their collective attitudes *not by abstract principles and ideas* such as "humanity" but by *interests and sentiments rooted in a particular group identification*. Thus, in terms of a sceptical social psychology of depth "internationalism" cannot be the real thing. If the (European) Jews were more internationally-minded than other people, it was not because they were more free than other people from particular nationalistic tendencies and prejudices but rather because the peculiar geographic setting in which they had to exist pointed in the direction of internationalism as an adequate solution of *their* national problem. For if nobody had a country of his own, the peculiarity of the Jewish situation would cease to be a peculiarity.

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*Who Shall Survive*, Beacon House, New York, pp. 346-348. See also the same book, pp. 197-199.

Not having a country of their own, the Jews are doing unconsciously what all people are doing when they do not possess something which others possess and which is universally held desirable, even unconsciously by themselves. Instead of admitting to themselves that for a group which is ethnocentric not having a country of their own is a misfortune or at least a dilemma, the "internationally-minded" Jews rationalize their own anomalous situation in re-interpreting the misfortune in terms of an alleged superiority.\* Thus, in terms of this re-interpretation, to be consciously nationalistic (or patriotic) means to be "prejudiced", to be "internationalistically-minded", i.e. not to be aware of the own nationalistic motivations, means to be "free from prejudices".

In analyzing the nationalistic attitudes on the two levels of *unconscious motivations* and *conscious manifestations*, we can say that there are three types of Jewish nationalism:

- 1). The "conscious Jewish nationalism"—Zionism. In this case the conscious manifestations of the nationalism is an adequate expression of the unconscious motivation.
- 2). The "non-Jewish nationalism of the Jews". In this case the Jews identify themselves with the nationalism of one of the adopted countries.
- 3). The "unconscious nationalism of the Jews through rationalization of the dilemma of not having a country of their own". This is the case when they adhere to internationalistic or pseudo-internationalistic ideals and identify themselves with internationalistic or pseudo-internationalistic movements.\*\*

Whether the unconscious nationalism of the Jews manifests itself in one way or another, as it manifests itself always in a *skewed situation*, it evokes inevitably some antisemitic reaction. The question arises: how do the (antisemitic) Gentiles react to those three basic types of Jewish nationalism? Translated into a conscious language, the not always conscious meaning of the reaction would sound something like this:

- 1). *Antisemitic reaction against the "conscious Jewish nationalism"*. "You do not belong to us. You admit yourself that your real home is somewhere else. So what are you doing here among us where you do not belong? We are against you not because you are a Jew but only because you, a

\*Only the Zionists among the Jews frankly recognize that not having a country of their own is a misfortune and strive therefore to correct this misfortune.

\*\*Illuminating remarks on Zionism and Socialism as two types of Jewish reaction to the situation created by emancipation in Louis Wirth: *The Ghetto*, 1929, pp. 105-107.

stranger, are here among us and not in your own country, among your own people, where you really belong".

2). *Antisemitic reaction against the "non-Jewish nationalism of the Jews"* (identification with one of the adopted countries). "You are trying to make us believe that you are one of us, that you are as we are ourselves. But we see and feel that this is not true. The truth is that you are split in yourself. With one part of your personality you might be really as we are ourselves. But then, unexpectedly, something in your gestures, something in the intonation of your voice, some preference or rejection you express, some joke you tell, reveal that other side of your personality. And this other side is strange to us, it is Jewish. And this is what we fear more than anything else: because you are partly as we are ourselves you can easily infiltrate into our national community and disintegrate it from within."

3). *Antisemitic reactions against the "internationalism" of the Jews*. "You pretend that you are nationally unprejudiced and that you are fighting for general humanitarian ideals. The truth is that you, as all people, are only fighting for yourself. Being uprooted by not having a country of your own, you propagate ideals which would uproot everybody else. Then, so you hope, when everybody will be a stranger without a home, your fate of being a stranger will cease to be your peculiar and isolating destiny. For then, it would become the universal destiny of all man."

Now, someone might argue, that even assuming the correctness of our interpretations concerning the different types and manifestations of the unconscious nationalism of the Jews, our interpretations of the different types of antisemitic reactions cannot possibly be true. For it presupposes a degree of psychological subtlety which the average antisemitic Gentile obviously does not possess. How can, so one might argue, a non-sophisticated person react, for instance, against the Jewish unconscious nationalism which manifests itself in the disguised form of internationalism, when he obviously does not know anything about this kind of complicated transformations and rationalizations.

Our answer is this. We all actually react on different levels of awareness. Thus, we may dislike somebody because we "feel" that he is insincere without being aware that it is this insincerity which we sense and dislike. In other words: our "unconscious" sensitivity reacts against certain hidden and elusive characteristics of other persons in a certain way, but our conscious reflection is often unable to detect those characteristics against which we actually react. Our unconscious reactions are often psychologically more subtle than our conscious reflections.

## THE "BASIC TENSION" AND THE TERRITORIAL SEPARATION

All factors discussed so far operate *in all* relations between groups which are permeated by some kind of unconscious nationalism. Thus, all groups of ethnic or quasi-ethnic character have a collective conception of the social world which is perspectivistically distorted. They all have misconceptions about the "others". They have misconceptions about themselves. They have the tendency to believe that they themselves see the things "as they are" and it is the "others" who have "distorted views". They all try, at least to some extent, either to impose their own misconceptions (the "truth") upon the others, i.e., those who do not see the "light", or to defend their own misconceptions against the ideological intrusion from outside. And they all are more or less deeply unaware of all these distortions and misconceptions.)

As far as these aspects of Jewish-Gentile relations are concerned, they follow the typical pattern of relations between groups which are permeated by unconscious nationalism. The peculiarity, the deviation from the typical pattern comes in mainly by the fact that the Jews, being an intensely self-centered group, do not live on a territory of their own, but live among other self-centered groups. In other words, the "Jewish problem", at least as long as the Jews do preserve or wish to preserve their particular culture, is basically "ecological" in nature.\*

As mentioned already on the first pages of this essay, it is by no means certain whether the relations between Jews and Gentiles throughout history were more disturbed than the relations between other unconsciously self-centered groups which were in close contact with each other, let us say between the English and the Irish, between the Germans and the Frenchmen, between the Russians and the Poles. They were not more disturbed but they were disturbed in a different way. And they were disturbed in a different way, first, because the Jews were living not separated from others by geographical barriers (the Ghetto was a kind of a substitute for it) but among others; and second, because the Jews are a minority which is spread through

\*See the penetrating remarks in the essay "An Analysis of Jewish Culture" by an author who signs as "Anonymous", in "Jews in a Gentile World", New York, 1942, pp. 253-254, about the tendency of the Jews to impose their culture on others "not in the naively missionary manner of Americans but unconsciously, certainly not deliberately, compulsively in a way, but almost in spite itself". We wish to mention at this point that the interpretation of antisemitism given on these pages is in essential agreement with the approach presented in this essay of "Anonymous". See my review of the book "Jews in the Gentile World", *American Journal of Sociology*, 1942, pp. 129-132.



many countries.\* The first of the two facts is the one which is of paramount importance.

We often tend to deceive ourselves about the possibility of being tolerant about other people, their conceptions and values. Even if tolerant, our tolerance is bound always to have certain limits dictated by the basic need for moral self-preservation. Thus, our tolerance and its degrees depend on different qualifying conditions.

As mentioned above, already the perception of the fact that other people are different from us, that they have conceptions and values which are contradicting our own, and that they still believe that they are right, is somewhat disturbing. We then mostly react with one of those self-defensive mechanisms discussed in one of the previous sections and are saying that "they" are either bad, or ignorant, or misguided. If we happen to feel quite secure, we may find it quite interesting, or even amusing, that "they" are so different in their ways, conceptions and values, provided we are sure that "they" will not essentially disturb our own ways, conceptions and values.

There are, therefore, several conditions which define the degree of our always only relative tolerance. The most important among them is the existence of *definite physical barriers* which, through a visible distance, establish and maintain the expected *social distance*.\*\*

"Normally", says the anonymous author of the splendid "Analysis of Jewish Culture",\*\*\* "each culture is at home upon its land, strongly identified with it. The fact of a certain degree of local and spatial isolation makes possible the operation of protective devices against too, disintegrating contacts with outside cultures". Then he continues: "Our naive reaction is hatred toward these foreign cultures which disturb our assurance in the ultimate correctness of our own." If we feel that our culture is threatened it might lead to war. "And the war, though horrible, destructive, and basically indecisive, is at least for the time being a satisfying outlet for the inner conflict which the threat to one's culture produces. When cultures are fixed upon the soil they may hate one another; but if the worst comes to worst,

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\*As to this second point see J. O. Hertzler: "The Sociology of Anti-Semitism through History" in the "Jews in a Gentile World", 1942, p. 82.

\*\*Another important condition of our tolerance is the *acceptance* of the "place" and the "role" established in the particular intergroup relation. White people are tolerant towards Negroes provided the Negro "keeps his place". Still another condition is determined by quantitative factors, i.e., *how many* "different" people we are willing to tolerate among ourselves.

\*\*\*Op. cit., p. 249.

they may fight and get some of their blockings straightened out, for the moment at any rate." "In the case of the Jews, however, the situation is different. They remain, in spite of themselves, a culture-within-a-culture no matter where they are. The normal reaction of their cultural hosts, since all cultures strain after consistency, is revulsion. If the Jewish culture were identified with a particular land this cultural irritation—supposing Jewish influence on other cultures to remain as great as at present—might conceivably lead to war. But the cultural host feels frustrated, baffled at this culture-within-a-culture, with no local habitation. To the host culture the Jewish culture seems like a parasitical growth interfering with its own normal functioning. Historically the reaction to this anomalous situation has taken the familiar forms of expulsion, pogroms, restrictions, and violence of various sorts—domestic equivalents of war."

#### WHY THE JEWS CANNOT AFFORD THE LUXURY OF NOT UNDERSTANDING THE BASIC CAUSES OF ANTISEMITISM

One serves neither the cause of truth nor the cause of the Jews in approaching the problems of antisemitism in a distorted perspective, and in obstructing a realistic understanding and discussion of the difficulties involved by distorting or misinterpreting their very nature. Facts are stubborn things. They do not disappear if we deny that they exist. Mechanisms which control attraction and rejection in interpersonal and intergroup relations are very real facts. They function according to certain socio-psychological laws and can be only to a limited extent influenced by conscious effort. Repressed below the threshold of social awareness, those unconscious mechanisms continue to operate below the surface and tend to become even more troublesome than they would be if they were made accessible to a frank social discussion.

Although exploited and abused for different ulterior motives, antisemitism, in its basic nature, is *not*, as some naive people are still inclined to believe, an "invention" of vicious or malicious people. It is neither a "fault" of the Jews nor a "fault" of the (antisemitic) Gentiles. It is rather a natural reaction to a disturbed situation. To think that by preaching and moralizing one will change, or even eliminate, antisemitic reactions is as absurd as to believe that one can exorcise unpropitious weather by magical incantation.\*

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\*Let us face the facts as they are: There are not very many Gentiles who consciously or unconsciously, overtly or in a hidden way, are not antisemitic in some respect and to some degree. This applies even to those Gentiles who are very friendly towards Jews, even to those who are married to Jewish men or women.

The truth is that the Jews, if they wish to survive, can simply not afford the luxury of continuing to ignore or to misinterpret the basic causes of antisemitism. We can afford the luxury of ignoring or misinterpreting the real causes of antipathy or hostility of other groups against our own, without endangering our existence, only under certain very definite conditions. None of these essential conditions is fulfilled in the case of the Jews.

We can afford this luxury only if we live on a territory of our own and if we have armed forces which are strong enough either to repel or to crush the conscious or unconscious nationalism of those who, in one way or another, threaten our own conscious or unconscious nationalism. Thus, powerful nations sometimes can successfully afford the luxury of self-centered blindness, in believing or pretending to believe that those who challenge their own unconscious nationalism, its mythology and its goals, are bad people, or stupid people, or misguided people.

The Jews are much too weak and live under much too precarious conditions to afford the luxury of following the example of powerful nations. The self-centered blindness which in the case of a powerful nation might sometimes be a cause and a sign of strength, can in a case of a group physically as weak as the Jews, spell only disaster. To the Jews, a policy of non-understanding and misunderstanding of the deeper causes of antagonistic attitudes of other people against themselves, has always been, and continues to be, a mortal danger. Their survival depends on a realistic understanding of why, wherever they are, their presence evokes this characteristic kind of antipathy or hostility, which is called antisemitism.

And this is why a correct and realistic diagnosis of antisemitism, even if it does not submit any concrete proposals concerning an effective therapy, is, or rather ought to be, an essential element in the struggle of the Jews for their survival.

## PSYCHODRAMATIC INSTITUTE PROGRAM—1946

In 1946 it will be ten years since Psychodramatic Institute opened its doors. During this period its Therapeutic Theatre has been applied to treatment, training and research.

The Institutes of Beacon and New York have organized facilities for the enrollment of one hundred students for the course during the coming year. All students are to receive instruction and training in psychodrama, sociometry and group psychotherapy, covering among others, the fields of: Nursery School, Child Guidance, Public School Education, Juvenile Delinquency, Speech Disorders, Intercultural Relations, Leadership Training, Family and Marriage Problems, Music Therapy, Therapeutic Films, Rehabilitation of the Returned Soldiers and of their Families.

The objectives of the program are: (a) Training of directors of psychodrama and group psychotherapy in the conducting of sessions; (b) Training auxiliary egos (therapeutic and research actors), of group interviewers and group lecturers; (c) Training of social analysts in clinical and actual situations; (d) Seminars covering the fields of psychodrama, sociodrama, sociometry, group psychotherapy and therapeutic motion pictures; (e) Research and field projects in psychodrama and group psychotherapy, with study of methods and analyzing and classifying psychodrama and sociometric materials.

Teaching and training will be given jointly at the auditorium of the New York Institute and at the Therapeutic Theatre of the Beacon Hill Sanitarium.

Students fall under two categories: (A) *The New York Group*—Students live in New York (those who have private residence) or commute from out of town and attend the classes at the New York Institute at 101 Park Avenue. These courses are continuous throughout the year. For this group sessions and classes are given 3 times a week in the late afternoon and evening, so that they are able to pursue a professional occupation during the day, or other academic studies. The full enrollment capacity of this group is 80 students. The weekly tuition fee is \$20.00, the fee for a 12 weeks' course is \$240.00; with additional training in directorial capacity the fee runs to \$360.00. There are a number of half scholarships available. Students who qualify for and obtain such scholarships pay half the tuition for the 12 weeks' course, \$120.00 and \$180.00 respectively. New York students may attend weekend sessions at Beacon, N. Y., staying at the Beacon Institute for the weekend if room is available, for an additional fee. Such weekend training is meant especially for students interested in direc-

torial techniques and work with mental patients. All students are required to pay a registration fee of \$5.00 in advance.

*Category B, the Beacon Group*—Enrollment in this group is limited to 20 students. Classes and sessions begin on June 1st and last for 4 months, until October 1st, 1946. Students of this group receive their room, board and training at the Psychodramatic Institute at Beacon, N. Y. The fee for students of this group is \$60.00 per week, \$240.00 for a four weeks' stay. Directorial work is part of the training of this group. Applications for enrollment in this group should be in our hands by June 1, 1946, with registration fee of \$5.00. Members of the Beacon group may attend New York sessions at a small additional expense.

J. L. Moreno, M.D., Director of the Psychodramatic Institute in Beacon and New York City, assisted by a staff of instructors, will conduct the seminars and sessions. Students will be permitted to use the library at the Psychodramatic Institute. Every student is expected to formulate and work out a research project related to his own field of application, under guidance. Upon completion of the course every student will obtain an acknowledgment from the director as to the duration of the course and the accomplishments of the student.

Students interested in training courses in 1947 may file their applications now; they will be placed on a preference list which will assure their admission to the 1947 Institute.